The Paradox of Post-Abortion Care:  
A Global Health Intervention at the Intersection of Medicine, Criminal Justice and Transnational Population Politics in Senegal

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ABSTRACT

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Sociologists have used boundary work theory to explore the strategies deployed by professionals to define and defend jurisdictional authority in the arenas of the public, the law and the workplace. My dissertation investigates how medical providers and public health professionals negotiate authority over abortion in Senegal. Although induced abortion is prohibited in Senegal, medical providers are permitted to treat complications of spontaneous and induced abortion, known as post-abortion care (PAC). Introduced to Senegal in the late 1990s, the national PAC program is primarily supported by American development aid. This study explores how medical providers manage complications of abortion and in particular, how they circumvent the involvement of criminal justice authorities when they encounter suspected cases of illegal abortion. I also study how boundary work is accomplished transnationally through the practice of PAC within the policy framework of American anti-abortion population assistance and the national prohibition on abortion. Findings are based on an institutional ethnography of Senegal’s national PAC program conducted over a period of 19 months between 2009 and 2011. Data collection methods included in-depth interviews with 89 individuals, observation of PAC services, and review of PAC records at three hospitals. I also conducted an archival review of abortion and PAC in court records, the media, and public health literature. Findings show that medical providers and public health professionals perform discursive, technical and written boundary work strategies to maintain authority over PAC. Although these strategies have successfully integrated PAC into maternal health care, they have reinforced the stigma of abortion for women and health professionals. They have also reproduced gendered disparities in access to quality reproductive health care. PAC has been implemented in nearly 50 countries worldwide with varying legal restrictions on abortion. This study illustrates not only how medical professionals practice abortion care in such settings, but also how they navigate a precarious array of medical, legal and global health obligations.
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Dedications

This dissertation is dedicated to the women who seek treatment for complications of abortion and the dedicated health professionals who provide life-saving care 24 hours a day, 7 days a week in state hospitals throughout Senegal.
We are not the police. It’s not up to us to manage delinquents. Our main concern is health. It’s up to the justice to see if it’s an induced abortion. When the patient comes, we have to treat her, and the rest is not our problem. We wear white coats, not uniforms…we were taught not to discriminate (Nurse).

Over steaming plates of thiéboudienne in the cafeteria of a state hospital one afternoon, a Senegalese nurse explained to me what happens when health professionals encounter patients suspected of clandestine abortion during the treatment of abortion complications. In Senegal, induced abortion is prohibited under any circumstance. Health professionals convicted of practicing or facilitating abortion in any way face imprisonment and the revocation of their medical license by the state. In his account of the treatment of abortion complications, the nurse depicted the work of health providers as strictly medical. He invoked images of professional garb to draw a sharp distinction between the roles of health providers and criminal justice officials. The white coat symbolized the medical professional’s neutral stance with respect to treating complications of illegal abortion. The provider’s priority was to treat rather than report the patient, irrespective of whether she had a miscarriage or an induced abortion. In contrast, the uniform of the police officer represented his or her duty to uphold the law. In the Senegalese context, this would entail investigating the circumstances under which the abortion took place and bringing anyone involved in procuring an illegal act to justice.

The nurse’s account of treatment also echoes the underlying philosophy of Senegal’s post-abortion care (PAC) program, introduced in the late 1990s. PAC is a global health intervention that aims to reduce abortion-related mortality and morbidity. The PAC model was

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1 Savory dish of rice, fish and vegetables.
conceived by American reproductive health organizations in the early 1990s. This model trains providers to treat abortion complications irrespective of the type of abortion or the legal status of abortion. In other words, PAC transforms the treatment of abortion complications into a strictly medical affair. Since the early 1990s, USAID has supported PAC activities all over the world, including Senegal.

The nurse’s account of the mundaneness of treating abortion complications belies the political and professional tensions at play in the practice of PAC. Although he insisted that the legal aspects of suspected induced abortion fall beyond the scope of the health professional’s duties, the Senegalese press tells a different story. In four accounts of illegal abortion reported by national newspaper *l’Observateur* between 2011 and 2012, the health providers who treated the woman notified the police (Diedhiou 2011a; Diedhiou 2011b; L’Observateur 2011; L’Observateur 2012). In one of these cases, the woman was transported by the hospital’s ambulance to the district police station after two days of observation following treatment.

Transcripts of court proceedings at the regional tribunal of Dakar obtained during my dissertation fieldwork also reveal the involvement of medical providers in the investigation of suspected illegal abortion. For example, in March 2009, a physician alerted the police when he encountered a patient with complications of suspected induced abortion. The police came to hospital, interrogated the patient and subsequently accompanied her to another health facility to conduct a sonogram to obtain more conclusive evidence of induced abortion. In April 2009, an anonymous source informed the police of a young woman being treated at a hospital for complications of induced abortion. The police arrived at the hospital within two hours of the patient’s admission to the maternity ward. In contrast to the nurse’s distinction between the roles of health providers and criminal justice authorities, these media and legal accounts suggest that
the treatment of abortion complications in state hospitals in Senegal is in fact closely intertwined with the legal pursuit of induced abortion. This study explores how medical professionals in Senegal negotiate this tension between medicine and criminal justice within the context of the national PAC program.

Research questions and methodology

My dissertation research investigates three primary questions. First, I examine how the PAC intervention has transformed the treatment of abortion complications in Senegal from a site of legal investigation to one of therapeutic intervention. I explore the meaning and practice of PAC in Senegal from the perspectives of various social actors and transnational institutions, including health providers, state health officials and personnel from local and international non-governmental organizations (NGOs) and donor agencies. What kinds of strategies have these professionals deployed to gain professional control over abortion care? What professional opportunities and constraints has PAC presented with respect to the provision of abortion care?

Second, I explore how the national PAC program in Senegal has unfolded at the intersection of national and global abortion politics and discourse. How has this intervention influenced and been influenced by the political landscape of abortion politics in Senegal? I locate PAC within multiple structures of power within the transnational politics of abortion and reproductive health, including state health authorities, international NGOs and donor agencies like the US Agency for International Development. I explore how transnational politics have shaped the institutional implementation and management of the national program, including operations research to test the feasibility of the model for the Senegalese context, the collection and interpretation of PAC data, and the distribution of manual vacuum aspiration (MVA), a
technology for uterine evacuation. I examine how transnational politics are enacted and contested in the daily and institutional practice of PAC by medical providers, state health officials and NGO personnel.

Third, I use a gendered lens to situate the meaning and practice of PAC within the broader context of gender relations and health care in Senegal. How has PAC diminished or reproduced gendered disparities in access to health care? I explore how PAC has influenced the location of abortion, a gender-specific medical procedure, within mainstream medicine and public health. How has PAC facilitated or constrained professional and political debate about the availability of safe abortion within the continuum of reproductive health care services? I investigate the implications of PAC’s political alignment with the global maternal mortality reduction initiative. How has this alignment prioritized or narrowed access to health care for women? How does the daily treatment of abortion complications in hospitals challenge or reproduce social norms about women’s sexuality? I also explore how PAC technologies and data shape meanings of and access to health care. How has the introduction of PAC technology diminished or exacerbated disparities in access to safe, affordable and effective care between rural and urban women? What kinds of data does PAC generate in state hospitals and health information systems, and how have these data challenged or reinforced normative expectations of women’s sexuality?

To address these questions, I conducted an institutional ethnography of Senegal’s national PAC program over a period of 19 months between 2009 and 2011 in three regions of the country. I interviewed medical providers, health officials, personnel from NGOs and donor agencies, criminal justice authorities, and members of legal and medical associations. I observed the treatment of abortion complications and reviewed abortion records in three hospitals. I
reviewed court records of illegal abortion prosecuted by the state. I also reviewed accounts of abortion and PAC in medical, public health, social science and media sources.

My findings suggest that PAC is situated dangerously close to the illegal practice of abortion in Senegal. The appropriate treatment of abortion complications requires careful negotiation of the boundaries between medicine and criminal justice by medical providers in hospitals and by state health officials in the management of the national PAC program. This study also shows that the boundaries under negotiation are not only between medicine and law, but also between transnational policies and discourses regarding abortion and reproduction. While the global PAC model calls for treatment irrespective of the type of abortion, the national abortion law complicates the ability of health professionals to treat all abortion complications in the same manner. Transnational abortion politics have also complicated the integration of manual vacuum aspiration (MVA), the preferred PAC technology, into routine gynecological practice. The strategies adopted by medical professionals to protect medical authority over abortion and to ensure the political acceptability of this intervention have isolated this procedure from medical practice. They have also reinforced disparities in access to life-saving care among women whose health PAC was adopted to protect in the first place.

Sociological significance

By exploring how PAC has transformed the treatment of abortion complications from a legal to a medical problem, this study contributes to a long genealogy of sociological investigation into the negotiation of professional authority. The strategies deployed by professionals to define and defend the boundaries of their jurisdiction are known as ‘boundary work (Gieryn 1983).’ Scientists have used primarily discursive strategies in public and policy arenas to demarcate their field from that of ‘non-scientists.’ Studies of the American medical
establishment have shown how physicians accomplished boundary work in the legal arena through monopolies over medical training, practice and technology (Freidson 1970; Starr 1982). Boundary work is not limited to the legal and public arenas, but also takes place through everyday practices in the workplace (Abbott 1988). In the medical domain, daily boundary work has been documented between pharmacists, physicians and hospital administrators in hospital and retail settings (Chiarello 2013), between physicians, nurses and auxiliary workers in the hospital (Allen 1997; Allen 2000; Hughes 1988) and between physicians and practitioners of complementary and alternative medicine (CAM) (Mizrachi and Shuval 2005; Mizrachi, Shuval and Gross 2005; Shuval 2006). Scholars of reproduction have demonstrated discursive, technical and clinical strategies deployed by medical professionals to maintain authority over abortion in everyday practice, such as authorizing abortions for preserving mental health (Joffe 1996; Reagan 1998) or euphemizing abortion with phrases like ‘menstrual regulation’ (Amin 2003; Dixon-Mueller 1988) or ‘saving women’ (Rance 2005).

My study of the national PAC program in Senegal offers an account of professional boundary work over abortion between medicine and criminal justice. I use boundary work theory as an analytical framework to explore the discursive, written and clinical strategies deployed by medical providers to circumvent police involvement at the hospital. I show how medical records operate as boundary work tools by obscuring suspected induced abortion. In contrast to much sociological literature on the everyday micropolitics of boundary work (Allen 2000), my study is not limited to professional disputes within the hospital. Rather, I show how boundary work occurs transnationally by examining how providers and state health officials negotiate global discourses and policies regarding PAC with the national abortion law in the daily practice and management of PAC. The negotiation of authority over abortion occurs at
various levels of the health system and through various structures of power, including health facilities, state health authorities, local and international NGOs and international donors such as USAID. This negotiation is also fraught with professional tensions between local and global public health expertise, between central and peripheral levels of the health system and between physicians and paramedical practitioners.

Scholars have extensively demonstrated how gender shapes the professional structure of medicine, the production of medical knowledge, daily practices involved in diagnosis and therapy, and the illness experience (Anspach 2010; Auerbach and Figert 1995; Bell 2009; Klawiter 2008; Lorber and Moore 2002; Martin 2001; Nathanson 1975). The isolation of abortion care from American medicine offers an excellent example of how medicine is gendered. Controversy over abortion reflects broader anxieties about how women’s reproductive autonomy threatens a gender order in which women’s social roles and responsibilities are closely tied to biology (Luker 1985; Petchesky 1990). These anxieties are reproduced institutionally within medicine through the increasing marginalization of this gender-specific service from mainstream obstetric and gynecological practice (Freedman 2010). In the US, a quarter of women will have an abortion by age 20, and 30% by age 45 (Henshaw 1998; Jones and Kavanaugh 2011). Yet, this common medical practice has been shunted out of hospitals and private medical practices into specialized abortion clinics, which provide the majority (93%) of abortions in the US (Jones et al. 2008).

This study contributes to the study of medicine as a gendered institution by exploring how gendered health inequalities are produced and reinforced during the treatment of abortion complications. The isolation of abortion from legitimate medical practice in Senegal is evinced by its omission from the continuum of reproductive health services available to women. It also
occurs in daily practice as women suspected of induced abortion are singled out and treated differently than women with complications of miscarriage. The exclusion of safe and effective MVA technology from national medical supply systems reinforces gender and economic inequalities in access to health care. Additional restrictions regarding MVA at the level of the hospital compromise the safety and quality of PAC services available to women in both rural and urban areas. Paradoxically, an intervention that was developed as a woman-friendly approach to addressing unsafe abortion has reinforced the stigma of abortion for women and health professionals in Senegal.

Attention to gender relations in medicine can be extended transnationally in order to understand how global reproductive health interventions reinforce gender and economic inequalities. In 1994, the United Nations International Conference on Population and Development called for a broader conception of reproductive health in global health and development interventions. Reproductive health in this field was too often narrowly conceived as regulating fertility or preventing mortality and morbidity related to pregnancy and childbirth. This definition prioritized the reproductive health needs of current or eventual mothers rather than the sexual and reproductive health of women (Dixon-Mueller 1993; Greenhalgh 1996; Greenhalgh 1995; Hodgson and Watkins 1997; Kabeer 1994). Furthermore, population and development discourses often portrayed women in the global South as ‘Third World Women’: women who were passive, lacking in reproductive autonomy and overly fertile (Mohanty 1988).

Global discourse and policy around maternal health care, HIV/AIDS and HPV vaccinations illustrate how gender hierarchies may reproduce inequalities in access to health care. In Egypt, maternal health programs have addressed maternal mortality and morbidity as attributes of ‘excessive fertility’ rather than locating this public health problem within the
broader social and economic context of women’s lives (Morsy 1995). In the early stages of the
global HIV epidemic, discourse within the World Health Organization confined women’s risk of
infection to two primary, highly dichotomized routes: motherhood and prostitution. Preventing
infection in women was understood as a means to an end, namely the prevention of HIV
transmission to infants and male clients. Absent from this discourse was a consideration of how
gender inequality within sexual relations increases HIV risk. Furthermore, these discursive
 grouping ignored women who belonged to both or none of these categories (Booth 1998).
Others have interrogated the global roll out of female vaccinations against HPV within
reproductive health rather than cancer facilities. Discourse on HPV revolves primarily on the
impact of the disease on mothers, overshadowing the non-procreative aspects of women’s lives
that are affected by cancer (Carpenter and Casper 2009).

The global Safe Motherhood initiative called attention to the gendered health inequalities
of maternal mortality and morbidity from obstetric complications that, while not always
preventable, could be treated (Rosenfield and Maine 1985). Yet, this global intervention that
urges the reduction of this gender-specific health disparity simultaneously offers a very narrow
definition of women’s health. By prioritizing the health of mothers, Safe Motherhood programs
overlook the health needs of women who are not mothers or have finished childbearing.
Programs mobilize political support and financial resources by deploying gendered definitions of
motherhood as vulnerable, selfless and inevitable. Some have called for more inclusive
terminology such as women’s health or reproductive mortality that recognizes women’s non-
procreative health needs. Such definitions might also improve abortion statistics, which are often
hidden among deaths and injuries related to pregnancy and childbirth (Rance 1997).
My study explores how the alignment of PAC with Safe Motherhood in Senegal has reinforced gendered health inequalities. I show how the treatment of abortion complications has been integrated into routine maternal health care while excluding safe abortion. Abortion is further marginalized from medical care as state health officials characterize PAC as an intervention primarily for mothers experiencing miscarriage rather than women who have sought induced abortion. Practices related to recording and collecting PAC data obscure induced abortion in hospital records and national health information systems. The incidence and prevalence of safe and unsafe induced abortion remain unknown. In turn, the omission of abortion data reinforces the notion that abortion is rare and that women who seek abortion are deviant.

Implications for global health and reproductive justice

By exploring the meaning and practice of PAC in Senegal, I offer insight into the transnational influence of American abortion politics on the lived experiences of health professionals and patients in the global South. The controversy over abortion in the US has spilled across national borders into federal policies regarding development funding for global population and reproductive health. The US exerts enormous influence over global reproductive health policies and programs because it is one of the biggest donors of development aid for reproductive health (Barot 2013; Crane 1994; Crane and Dusenberry 2004; Kulczycki 1999). In 2009 and 2010, the US spent $2195 and $2202 million, respectively, in reproductive health funding (Hsu, Berman and Mills 2013). The Helms Amendment of 1973 was the first in a series of anti-abortion foreign policies that prohibited federal support for abortion-related services, research and technology. The transnational politics around abortion funding contributed to the emergence of PAC and the implementation of this intervention in countries like Senegal. Still on
the books, the Helms Amendment does not preclude US funding for PAC but forbids the purchase of MVA (Barot 2013; Curtis 2007), the woman-friendly technology for PAC championed by the global reproductive health community. While my research focuses on Senegal, my findings hold relevance for approximately 50 countries in Africa, Asia and Latin America where PAC activities are being implemented by international NGOs, half of which are funded by the US government (PAC-Consortium 2012).

The public health impact of abortion laws is well documented. When abortion laws are restrictive, mortality and morbidity from unsafe abortion are more common (Sedgh et al. 2007a; Sedgh et al. 2012; Singh et al. 2009). When abortion laws are liberalized, mortality and morbidity from unsafe abortion are reduced (Benson, Andersen and Samandari 2011; Guttmacher 1999; Jewkes et al. 2002; Jewkes et al. 2005). Most mortality from unsafe abortion takes place in sub-Saharan Africa, where abortion laws, with the exception of countries like Ghana, South Africa, Zambia, Tunisia and Cape Verde, prohibit abortion under all circumstances or restrict the procedure to preserving the woman’s life (WHO 2011a). Starting in the 1990s, the global health community championed PAC to address unsafe abortion within a political climate that was hostile to funding safe abortion. This intervention ensured emergency treatment of abortion complications irrespective of whether the abortion was induced or miscarriage (Corbett and Turner 2003; Greenslade et al. 1994).

Although PAC offers life-saving care to women with complications of abortion, my research suggests that the global model of PAC and the meaning and practice of PAC in a particular context are not one and the same. In Senegal, PAC has acquired a professional, technological and political life of its own that is inextricably related to the legal context of abortion as well as the political strings tied to American funding dollars. The national PAC
program has made some remarkable accomplishments in a context where abortion is
criminalized. PAC integrated the treatment of abortion complications into routine maternal
health care. The PAC program championed MVA over dilation and curettage (D&C), the
standard technique used to treat abortion complications in hospitals. It increased the scope of
professional responsibility for midwives by training them to use MVA. In doing so, the PAC
program also increased access to MVA services at lower levels of the health system frequented
by rural populations.

The story of PAC does not end here. My research shows that the social and legal context
of abortion has engendered a particular way of providing and managing PAC that reinforces
gender and economic disparities in access to reproductive health care. PAC pits health providers
against women and discriminates against women suspected of induced abortion. PAC obscures
abortion in hospital records and national health information systems. MVA circulation policies
restrict women’s access to quality services. Through its connection to Safe Motherhood, PAC
reinforces gender inequality by prioritizing the health of mothers rather than all women. Most
egregiously, PAC withholds safe medical care from women until after they have resorted to
unsafe abortion procedures. It limits medical authority to the practice of treating botched
abortions, frequently initiated by unskilled practitioners, rather than practicing safe abortion.
PAC offers life-saving care to women, but it does little to address the systemic gender inequality
that excludes a gender-specific service from legitimate medical care.

My research demonstrates the need for further research and activism on abortion at
national and global levels. Emergency treatment for abortion complications is important but not
sufficient to reduce the public health consequences of unsafe abortion. In Senegal, there is a
pressing need not only to revise the law, but also to clarify the role of providers and police in
managing suspected illegal abortions. At a global level, contradictions in funding policies that support PAC and maternal health but not safe abortion or abortion technology must be resolved. These transnational hypocrisies engender practices in health facilities and systems that entrench discrimination against women and disparities in access to quality health care.

Summary of chapters

The dissertation is divided into 8 chapters. In chapter 2, I explain the emergence of PAC in the global reproductive health community. I also situate Senegal’s PAC program within the broader context of reproduction and fertility in this country. Chapter 3 reviews the sociological literature on boundary work, technology in practice and the production of abortion stigma. Chapter 4 describes the research methodology. In chapter 5, I illustrate boundary work practices by the Ministry of Health and its partner NGOs to maintain authority over PAC. Chapter 6 explores how state health officials and health providers navigate the boundaries between appropriate and inappropriate utilization of MVA. In chapter 7, I explore the discursive, clinical and written strategies deployed by medical providers to maintain professional authority over the treatment of abortion complications. I end with a discussion of the professional and public health paradoxes raised by PAC in Senegal and outline future areas of research.
(2) Background

Unsafe abortion and the emergence of PAC in global reproductive health

As early as 1967, the World Health Organization recognized unsafe abortion as a serious global health problem. Unsafe abortion refers to procedures performed by an insufficiently skilled practitioner or in an unhygienic environment, or both (WHO 2007). At a global meeting on maternal mortality in Nairobi, Kenya in 1987, a coalition of UN organizations and NGOs known as the Safe Motherhood Initiative identified unsafe abortion as one of the 5 primary causes of maternal mortality (UNFPA 2002). Nearly 30 years later, unsafe abortion continues to account for 13% of global maternal mortality. Almost half of the 42 million abortions that take place every year are unsafe. Most unsafe abortions occur in developing countries. Almost all (98%) of the 47,000 abortion-related deaths that occur every year are in developing countries. The risk of death from unsafe abortion is higher in sub-Saharan Africa than any other region of the world (WHO 2011a). Every year, nearly five million women in developing countries worldwide are hospitalized due to complications of abortion (Singh 2006).

Two primary factors contribute to unsafe abortion: access to contraception and access to safe abortion services. Consistent and correct use of contraception is the best way to prevent unwanted pregnancy, which may result in induced abortion. In places with high contraceptive prevalence, abortion rates are low. In 2008, 40% of the 185 million pregnancies in the developing world were unintended and nearly half of them ended in abortion (Singh et al. 2009).

When faced with an unwanted pregnancy, women all over the world are likely to seek induced abortion irrespective of the legal status of abortion. Unsafe abortion is less likely in settings with liberal abortion laws while restrictions on abortion tend to increase the number of unsafe abortions (Sedgh et al. 2007a; Sedgh et al. 2007b; Sedgh et al. 2012; WHO 2011a).
Reductions in abortion related mortality following the liberalization of abortion laws have been observed in Bangladesh, Guyana, Romania, South Africa and the United States (Benson, Andersen and Samandari 2011; Guttmacher 1999; Jewkes et al. 2002; Jewkes et al. 2005).

Abortion is a politically controversial area of global reproductive health. Nearly 20% of women worldwide live in countries where abortion is completely prohibited or permitted only to preserve the woman’s life (WHO 2011a). Part of the controversy also stems from the influence of American anti-abortion policies in the global arena of reproductive health. In 1973, the same year that the US Supreme Court legalized first trimester abortion upon request in the US, the US Congress enacted the Helms Amendment, which prohibited federal funds from supporting the use of abortion as a form of family planning. The Mexico City Policy of 1984, also known as the Global Gag Rule, prohibited NGOs who received US population funding from using non-US funding for abortion services, information, referral, counseling or advocacy. As the US is one of the largest donors of population aid through its Agency for International Development (USAID), these policies have had a ‘chilling’ effect on the global reproductive health community (Cohen 2000; Crane 1994; Crane and Dusenberry 2004; Kulczycki 1999). The Global Gag Rule severely curtailed abortion research, service delivery and advocacy in the international community. Although President Obama rescinded the Mexico City Policy in 2009, the Helms Amendment remains in place and continues to prohibit the support of abortion services for victims of sexual violence as well as technology for the treatment of abortion complications such as Manual Vacuum Aspiration (MVA) or Misoprostol. Many NGOs remain reluctant to even discuss abortion to avoid jeopardizing their US funding for other reproductive health services (Barot 2013).
The post-abortion care (PAC) model emerged in the 1990s to address abortion-related mortality in a political climate that was hostile to supporting safe abortion services. In 1991, reproductive health NGO Ipas coined the term ‘post-abortion care’ to describe the integration of treatment for abortion complications with family planning in reproductive health care. By 1994, Ipas published a three-pronged PAC model that included emergency treatment for complications of induced and spontaneous abortion, post-abortion family planning counseling and services, and links to other reproductive health services. The PAC model has since expanded to include two additional elements: psychosocial counseling and community and service provider partnerships. The PAC model also called for less invasive methods of uterine evacuation than dilation and curettage (D&C) such as MVA (illustrated in Figure 1) that could be performed at lower levels of the health system (Corbett and Turner 2003).

Figure 1: Manual Vacuum Aspiration (MVA)


Under the PAC model, health providers were supposed to treat complications irrespective of the origins of the abortion as well as the legal status of abortion (Greenslade et al. 1994). Providers could no longer threaten to withhold treatment from women suspected of induced abortion, or treat them any differently than women presenting with complications of miscarriage.
PAC emphasized the ethical obligation of the health professional to treat all patients irrespective of the circumstances under which the abortion took place. In other words, the PAC model transformed the treatment of abortion complications into a strictly medical affair.

Research around the world has documented best practices regarding PAC. MVA is safer and more effective than D&C. Specifically, the rate of complications associated with MVA is two to three times less than that of D&C. MVA is also associated with less blood loss and pain than D&C (WHO 2012). Studies show that MVA is more affordable for patients than D&C (Wood, Ottolenghi and Marin 2007). Misoprostol is a safe and effective non-surgical method for treating complications of incomplete abortion (Dao et al. 2007; Diop et al. 2009; Taylor et al. 2011). Contraceptive uptake among PAC patients is highest when family planning services are provided in the same facility as treatment (Johnson et al. 2002; PopCouncil 1999). Decentralizing PAC from tertiary to secondary and primary health facilities increases women’s access to services (Curtis 2007). Similarly, decentralizing uterine evacuation services from physicians to trained midwives also increases women’s access to PAC (Otsea et al. 1997; PopCouncil 1999).

In 1994, the Platform of Action for improving reproductive health issued by the UN International Conference on Population and Development (ICPD) indicated that irrespective of the legal status of abortion, governments should ensure the availability of quality PAC services (Kulczycki 1999). Because it addressed complications of previously induced abortions, PAC was compatible with restrictive national abortion laws. Strict interpretations of the Helms Amendment complicated USAID’s ability to fund post-abortion care throughout the 1990s. Nevertheless, between 1994 and 2001, USAID spent over $20 million supporting PAC activities related to operations research, training, service delivery and policy and advocacy in more than 40 countries, excluding the purchase of MVA or Misoprostol. In 2001, the Bush administration
clarified that PAC was also compatible with US population aid that did not support induced abortion. In 2003, USAID launched a 5-year global PAC initiative. Senegal was one of 7 countries selected to receive funding to support the institutionalization of PAC (Curtis 2007).

Population, gender and reproductive health in Senegal: selected indicators

Senegal is the westernmost country on the African continent, bordered by Mauritania, Mali, Guinea and Guinea-Bissau (see maps in Appendices 1 and 2). Although the national language is French, the indigenous languages of Wolof, Pulaar, Jola and Mandinka are widely spoken. Among the 20 reported ethnic groups, most of the population (90%) belongs to the following groups: Wolof (43%), Pulaar (24%), Serer (15%), Diola (5%) and Mandinka (4%). Almost all (94%) of Senegal’s population of 12,526,488 is Muslim. The population is unevenly divided across the country’s 14 administrative regions. Up to 23% of the population, and 75% of the urban population, live in the region of Dakar, which occupies only 0.3% of the country’s territory (ANSD 2012).

Senegal ranks low at 154 out of 187 countries (between Nigeria (153) and Mauritania (155)) on the United Nations Development Programme (UNDP) Human Development Index. Life expectancy is 59.6. A third of the population lives below $1.25 per day. GDP per capita is estimated at $1737 (UNDP 2013). Over half of the population (65%) is illiterate, with higher rates of illiteracy reported among rural populations (72%) than urban populations (39%). Illiteracy is also greater among women (57%) than men (48%) (ANSD 2012).

The state allocates approximately 10% of the national budget to the Ministry of Health. In 2010, the Demographic and Health Survey reported 34 hospitals, 89 health centers or district

2 Other countries included Bolivia, Cambodia, Haiti, Kenya, Nepal and Tanzania.

3 A composite measure of basic indicators of human development, including life expectancy, educational attainment and income.
hospitals, 1195 health clinics (160 of which were non-functional), 76 private Catholic
dispensaries and 1603 health huts. Senegal still falls short of the WHO’s recommendations for
health facility coverage of the population (ANSD 2012).4

Adult prevalence of HIV in Senegal, estimated at 0.7%, is among the lowest in the West
African region. This indicator has remained stable since 2005. A higher prevalence is estimated
among women (0.8%) than men (0.5%) (ANSD 2012).

At 5.0 births per woman, Senegal’s total fertility rate (TFR) is higher than that of Ghana
(4.0) and Ivory Coast (4.9), but lower than that of Nigeria (6.0) and Burkina Faso (5.8)
(WorldBank 2014). The TFR is higher in rural areas (6.0) than urban areas (3.0). TFR is lowest
in the wealthiest quintile (3.3) and highest in the poorest (7.0) (ANSD 2012). The adolescent
fertility rate is estimated at 105.9 births per 1000 women aged 15 to 19, which is higher than
Ghana (71.1) but lower than Nigeria (118.3), Burkina Faso (124.8) and Ivory Coast (129.4)
(UNDP 2013).

Senegal boasts high levels of contraceptive knowledge: 93% of women and 90% of men
know of at least one modern FP method. Yet, contraceptive prevalence among women in union
is only 12%. Contraceptive prevalence is higher among urban women (20%) than rural woman
(7%). Up to 29% of women report contraceptive unmet need, meaning that they are not
currently using a modern family planning method but wish to space or limit births (ANSD 2012).

Maternal mortality in Senegal is extremely high. In 2005, the DHS reported a ratio of
435 deaths per 100,000 live births. In 2011, the ratio dropped very slightly to 392 deaths per
100/000 live births. The percentage of births that took place in a health facility increased from
62% in 2005 to 73% in 2011. Among these births, 65% were attended by a skilled practitioner.

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4 1 health clinic per 10,000; 1 health center per 50,000; and 1 hospital per 150,000.
This suggests that even in health facilities, some births are attended by practitioners that the WHO considers unskilled (not a nurse, doctor or midwife) (WHO 2004).

Abortion and PAC in Senegal

National estimates of induced abortion in Senegal have not been established. Although the 2011 Demographic and Health Survey has reported the maternal mortality ratio, it does not estimate the contribution of unsafe induced abortion to maternal death (ANSD 2012). The WHO estimates the rate of unsafe abortion in West Africa at 28 unsafe abortions per 1,000 women of reproductive age. This is less than the estimated 36 unsafe abortions per 1,000 women in Middle and East Africa, but far greater than the 6 unsafe abortions per 1,000 women in developed regions (WHO 2011a). Maternal death reviews in hospitals have found that hemorrhage is the leading cause of maternal death while abortion accounts for very little mortality (Dumont et al. 2006; Kodio et al. 2002). However, complications of induced abortion are often misclassified as hemorrhage or sepsis (Barreto et al. 1992; Khan et al. 2006).

Hospital data offer limited insight into the scope of induced abortion in Senegal. Patients presenting with complications of suspected induced abortion tended to be young, unmarried, not currently using contraception and had limited formal schooling. A study conducted in four hospitals in Dakar between 1993 and 1994 showed that nearly 60% of women admitted for treatment of unsafe abortion were less than 24 years old (Diadhiou 1995; Faye 1993; Goyaux et al. 2001). Studies also pointed to institutional barriers to treatment. While most complications of abortion presented at rural health facilities, treatment (which primarily entailed dilation and curettage (D&C)) was concentrated in large hospitals in urban areas (PopCouncil 2004).

Between 1993 and 1994, a study conducted in four hospitals in the capital city of Dakar estimated that nearly a quarter of patients admitted with complications of abortion had had an
induced abortion. Almost all patients with complications of unsafe abortion indicated that their pregnancy was unwanted (Diadhiou 1995; Goyaux et al. 2001). Complications of abortion accounted for 7.4% of maternal mortality (Diadhiou 1995). Between 2000 and 2002, a review of client records in 6 district hospitals and 12 health clinics in the regions of Kaolack and Fatick found that 95% of abortions were recorded as spontaneous (CEFOREP 2003; EngenderHealth 2003). Yet, up to 35% of PAC patients admitted that the pregnancy was unwanted. Among these women, 17% admitted to having an induced abortion (CEFOREP 2003). Another study conducted between 2002 and 2003 at the national teaching hospital in Dakar showed that induced abortion accounted for only 5.6% of all abortions treated in the hospital (Cissé, Faye and Moreau 2007). The researchers note that induced abortions were likely underreported. In addition to significant variation in estimates of induced abortion among these hospital-based studies, this evidence is further limited by the omission of women who did not seek medical care for abortion complications.

Senegal’s abortion law derives from the Napoleonic Code enacted in France in the early 19th century that prohibited induced abortion under any circumstance. Women and any accomplices who procure induced abortion are subject to imprisonment and fines. Providers convicted of abortion may lose their professional license for up to 5 years or permanently in addition to imprisonment and fines (CRR 2003; Knoppers, Brault and Sloss 1990; Scales-Trent 2010). Although the penal code forbids induced abortion, the code of medical ethics permits therapeutic abortion if the woman’s life is endangered by the pregnancy (CRR 2003). According to Article 35 of the code of medical ethics, eligibility for therapeutic abortion must be confirmed by two other physicians, one of whom is a court-approved expert (CEFOREP 1998b; Touré 1997). Health care professionals who participated in my study indicated that due to these
administrative requirements, therapeutic abortion is rare. These observations echo findings from a study in Ghana, where physicians indicated that in spite of a more liberal abortion law, administrative requirements posed a significant barrier to the provision of legal abortion (Payne et al. 2013).

The penal code does not require medical providers who treat complications of induced abortion to notify law enforcement officials. Article 7 of the code of medical ethics requires health providers to respect patient privacy (*le secret professionnel*). The 2005 law on reproductive health grants all citizens the right to confidential health services. However, my review of the Senegalese press found that medical providers do indeed report suspected cases of illegal abortion. Over a span of just two months, between September and October 2011, Dakar newspapers reported three cases of suspected induced abortion brought to the attention of the police by medical providers. (Diedhiou 2011a; Diedhiou 2011b; L'Observateur 2011).

In response to hospital-based studies of abortion complications conducted in the early 1990s, the Ministry of Health introduced post-abortion care through a series of operations research projects. Between 1997 and 1998, the Ministry piloted PAC at two hospitals and a health center in the region of Dakar. Findings showed that PAC increased contraceptive uptake and reduced the length of hospitalization and cost for patients with complications of abortion. The study also demonstrated the feasibility of midwives using MVA (CEFOREP 1998a). In response to this first operations research initiative, the Ministry of Health integrated PAC into its Norms and Protocols for reproductive health in 1998 (Diadhiou 2008; Thiam, Suh and Moreira 2006). In 1999, the Ministry of Health extended the next phase of operations research to two regional hospitals and a district hospital in the regions of Diourbel and Kaolack. Similar to the first study, findings showed reduced cost and length of hospital stay for patients, the
acceptability of MVA among providers and improved family planning uptake after abortion by patients (Thiam, Suh and Moreira 2006). Starting in 2000, the Ministry launched a two-year operations research program in collaboration with EngenderHealth and Population Council to test the feasibility of extending PAC to rural health facilities. PAC was introduced to 6 health centers and 12 health clinics in the regions of Kaolack and Fatick. Findings showed an increase in the number of patients treated for abortion complications rather than referred to regional hospitals. In addition, most cases were treated using MVA. Family planning counseling and contraceptive uptake after abortion also increased. The study also showed a decline in the length of hospitalization, the cost of services for patients and the percentage of patients referred to regional hospitals (CEFOREP 2003; EngenderHealth 2003).

In 2002, the Ministry of Health initiated another operations research project in collaboration with Intrahealth to introduce PAC to the primary health care level in a rural district in the region of Fatick. The project trained nurses, midwives and community health agents in PAC and reinforced the referral system between rural health facilities and health centers. The project also conducted a community-based sensitization campaign to improve recognition of danger signs during pregnancy and to initiate the establishment of emergency transportation systems (PopCouncil 2004).

After five years of operations research, the Ministry of Health had demonstrated the feasibility of offering PAC at multiple levels of the Senegalese health system. Starting in 2003, the Ministry of Health began to extend PAC services to health facilities around the country. In collaboration with Management Sciences for Health (MSH), the Ministry extended PAC to 323 district hospitals and health clinics and trained 523 health providers in 23 districts. By 2006,
almost all (85%) of the health centers in these districts had integrated PAC into their services (Thiam, Suh and Moreira 2006).

In 2008, the Ministry began to collaborate with Ipas to train midwives in PAC in the regions of Dakar and Diourbel. Between 2008 and 2009, the Ministry partnered with Gynuity Health Projects to test the safety, efficacy and acceptability of using Misoprostol for the treatment of incomplete abortion at a hospital in the region of Dakar. At the time of this study, the Ministry was implementing a community-based approach to PAC in partnership with Child Fund. The Ministry of Health was also preparing to conduct operations research in collaboration with Gynuity Health Projects to test the feasibility of using Misoprostol at primary and secondary level health facilities.

Abortion activism

Recently, several civil society organizations and government agencies have advocated for the revision of the abortion law in Senegal. *L'Association des Juristes Sénégalaises (AJS)*/Association of Women Lawyers attempted to allow safe abortion for cases of rape and incest in a reproductive health law presented to the National Assembly in 2005 (Scales-Trent 2010). Although abortion was eventually struck from the law, AJS continues to mobilize for social and legislative change. For example, AJS has held workshops with police officials, judges and health professionals to clarify the law and discuss strategies for managing cases of rape and incest. At the time of this study, the Ministry of Culture and Gender was in the process of advocating for coherence between Senegalese law and international treaties ratified by the Senegalese state such as the Maputo Protocol of 2005, which permits abortion for rape, incest, and the woman’s physical and mental health. In 2010, the *Division de la Santé de la*
Reproduction (DSR)/Division of Reproductive Health of the Ministry of Health conducted a strategic evaluation of unsafe abortion to increase awareness of this public health problem among policymakers (DSR 2010). L’Association des Médecins Femmes/Association of Women Physicians delivered a presentation on the public health implications of unsafe abortion at a conference for International Women’s Day in March 2011 that urged reform of the abortion law (Thiam 2011). Scholars also actively contribute to the national discussion on abortion. That same month, in response to the case of a 14-year-old victim of rape who was arrested for induced abortion and taken directly from the hospital to the police station, Fatou Kine Camara, Professor of Law at l’Université Cheikh Anta Diop and Deputy Secretary General of AJS, called for the immediate application of the Maputo Protocol (Ba 2011). A highly publicized rape/incest case involving a minor occurred in September 2011. Kaly Niang, a sociologist, argued that such cases demonstrated the need to revise the abortion law (Niang 2011).

The political economy of reproduction in Senegal

The Government of Senegal (GoS) has demonstrated its commitment to improving reproductive health since the 1980s. In 1980, the GoS lifted a national ban on contraception (but not abortion) that had been in place since 1933 during the French colonial administration. A population policy was adopted in 1988 that aimed to decrease fertility, reduce mortality and improve quality of life (CRLP 2001). The GoS has demonstrated commitment to global action plans such as the International Conference on Population and Development (ICPD) and the Millennium Development Goals (MDG) and has ratified international human rights treaties such as the Convention on the Elimination of all Forms of Discrimination Against Women (CEDAW) and the Maputo Protocol (Scales-Trent 2010). In response to recommendations from the ICPD,
the government established a National Reproductive Health Program in 1997 to address population and reproductive health.

In 2005, the National Assembly authorized a reproductive health law that was grounded in the intersecting principles of human rights and reproductive health articulated by the ICPD. The law entitles all citizens to reproductive health care (including maternity care, family planning, and testing and treatment for STI) irrespective of gender, ethnicity, socioeconomic status or age. The law recognizes post-abortion care within the continuum of reproductive health services supported by the state. It explicitly prohibits discrimination on the basis of marital status. While previous family planning policy required women to obtain spousal consent prior to accessing government family planning services (Boye et al. 1991), the law specified that all individuals, including unmarried individuals, have the right to services. The GoS has received significant amounts of development assistance for reproductive health from for the US government. The US has invested over $1 billion, approximately $30 million a year, in development activities, including health, in Senegal since 1961. In 2006, the US launched a 5-year, $75 million health program encompassing HIV/AIDS, tuberculosis, maternal and child health and family planning (USAID 2006).

Given the extensive attention to and investment in reproductive health by the GoS and its partners, how are we to interpret the persistently precarious reproductive health status of Senegalese women evidenced in the above indicators? In contexts with persistently high maternal mortality and fertility such as Senegal, social scientists have argued that indicators such as skilled attendance at birth or contraceptive unmet need do not adequately capture the lived experience of fertility and reproduction. Instead, they call for a political economy of reproduction that recognizes the social, cultural, political, economic and historical dimensions of
reproduction (Bledsoe, Banja and Hill 1998; Davis-Floyd and Sargent 1997; Ginsburg and Rapp 1995; Greenhalgh 1995). This framework conceptualizes fertility, pregnancy, childbirth and abortion as contested terrains around which various actors and institutions, including women, communities, health practitioners and the state, struggle to assert claims to authoritative knowledge. A political economy approach delves into the power relations that determine how and where women give birth or seek contraception and abortion.

Research on reproductive health in Africa shows that even where reproductive health care services are available, women’s health care seeking decisions are influenced by numerous factors. Crumbling health systems, underequipped health facilities and underpaid, demoralized health professionals may discourage women from delivering in health facilities (Beninguisse and De Brouwere 2004; Eades et al. 1993; Geurts 2001; Gilson, Alilio and Heggenhougen 1994; Jewkes, Abrahams and Mvo 1998). In many African communities, pregnancy and delivery are highly meaningful social experiences and women therefore seek culturally acceptable care that may not be available at health facilities (Beninguisse and De Brouwere 2004; Chapman 2006; Maimbolwa et al. 2003; Obermeyer 2000). The perspectives of spouses and in-laws carry considerable weight in determining whether and how women seek reproductive health care (Chapman 2006; Geurts 2001). Social differences between birthing women and skilled health professionals, such as age, ethnicity and marital status, may lead women to seek care from traditional practitioners within their own communities (Grossmann-Kendall et al. 2001; Jaffré and Prual 1994). Traditional practitioners often live in the same community as expectant mothers and may even be related to them. They therefore share systems of knowledge regarding pregnancy and childbirth and can offer treatment that is more culturally acceptable than biomedical obstetric care (Beninguisse and De Brouwere 2004; Geurts 2001; Maimbolwa et al.
Unmarried adolescents may avoid seeking family planning or post-abortion care at health facilities to avoid judgmental attitudes from health care providers or being seen by neighbors or family members (Foley 2007; Johnson-Hanks 2002; Levandowski et al. 2012; Payne et al. 2013).

Although there is significant regional variation, reductions in fertility have been observed throughout the African continent in the late 20th century. Fertility reduction has been attributed to socio-economic change such as increased urbanization, increased schooling of girls and later entry into marriage (Caldwell, Orubuloye and Caldwell 1992; Guillaume and du Loû 2002; Rossier et al. 2006). Yet, some of the highest rates of fertility in the world are found in Africa. The total fertility rates in Eastern and Western Africa were 5.5 and 5.7 children per woman, respectively, in 2007, and up to 6.3 in Middle Africa (Dodoo and Frost 2008). In some parts of Africa, the average pace of fertility decline slowed between the mid-1990s and the 2000s. In some countries, fertility decline has altogether stalled (Bongaarts 2008; Shapiro and Gebreselassie 2008).

In spite of extensive studies of fertility in Africa, sociologists have argued that demographers continue to inadequately conceptualize the role of gender in determining fertility (Dodoo and Frost 2008). Demographic approaches often conflate gender with biological sex as an attribute that differentiates men and women rather than exploring gender as an unequal system of social organization. Gendered fertility decisions must instead be located within a larger social, political and economic context. For example, Johnson-Hanks has interrogated the relevance of the concept ‘unmet contraceptive need’ in her research on gender, contraception, abortion and motherhood in Cameroon. Demographers define unmet contraceptive need as the percentage of women who wish to delay the next birth or stop childbearing altogether, but are not using
modern contraception. Johnson-Hanks found that even among educated, middle class women, ‘traditional’ forms of contraception such as periodic abstinence were common and even preferred over modern methods such as the pill, IUD or Depo Provera. Periodic abstinence represented part of a broader moral and ideological framework regarding honor, discipline and respectability for women. Women understood the use of artificial contraception as a sign of sexual debauchery, backwardness and lack of control. In contrast, women perceived the discipline and control required for periodic abstinence as a sign of modernity and self-control. Family timing and composition rather than size were the most significant markers of modern, appropriate womanhood in this context (Johnson-Hanks 2006; Johnson-Hanks 2002).

In many African communities, marriage and childbearing are important forms of achieving social status for both men and women. Children represent a form of old age security as well as the continuation of kinship structures. The extended family also bears considerable influence in determining women’s fertility. Practices such as bride wealth, in which the husband’s family provides a payment to the woman’s family, may limit women’s decision-making power within the marriage (Dodoo and Frost 2008). In societies with polygynous marriage such as Senegal, fertility is high because women tend to marry young and marriage is prevalent (divorced or widowed women often remarry), leaving women exposed to pregnancy and childbearing for longer periods of time (Lardoux and Van de Walle 2003). Each member of the married couple may have different, conflicting interests with respect to childbearing. For example, a study in Nigeria found that husbands exert more influence over fertility during the first ten years of marriage, while wives demonstrate more leverage for additional children during the following ten years of marriage (Bankole 1995).
A political economy of reproduction also facilitates an understanding of how ‘macro’ or global economic and political forces, such as structural adjustment programs that reduce government health spending or global health funding policies that restrict the availability of contraceptives or abortion, may shape decisions regarding fertility and reproduction (Foley 2006; Ginsburg and Rapp 1995; Johnson-Hanks 2006; Kanaaneh 2002; Rylko-Bauer 1996). In a study of women’s reproductive health in Senegal, Foley shows how women’s reproductive decisions are influenced by multiple and at times contradictory social and economic forces (Foley 2007). On one hand, Senegalese women considering the use of contraception are confronted with family planning programs, supported by international donors such as USAID, that are primarily driven by demographic goals of population reduction. On the other hand, in a social and economic context where women face limited educational attainment and employment opportunities (Scales-Trent 2010), having large families may be the most feasible strategy for women to ensure marital and financial security. Foley suggests that this ‘disconnect’ between narrowly conceived reproductive health services and the lived reality of women in a highly gender-stratified society may account for persistently high rates of fertility in spite of widespread knowledge of contraception among women in Senegal (ANSD 2012; Foley 2007).

The legal, economic and social status of women also shapes their ability to influence fertility decisions within marriage. Scholars argue that the combination of Islamic and secular law in the Family Code of 1972 reinforces gender inequality (Camara 2007; Creevey 1996; GREFELS 2003; Kane 1972; Scales-Trent 2010; Sow 2003). Although the Senegalese constitution ensures equal rights for men and women, citizens can ‘decide’ which law will determine decisions regarding marriage, divorce, inheritance and child custody (Sow 2003). Women, especially in rural zones, have limited legal recourse due to high rates of illiteracy in
French, the language of the Family Code, as well as limited ability to afford legal representation (Camara 2007; Scales-Trent 2010). With respect to inheritance, families can divide resources equally among children, or women are entitled to half of what their brothers receive according to Islamic law (Sow 2003). Some parts of the Family Code are explicitly biased against women, such as article 152 which grants men authority over the family as the head of the household and article 277 which limits authority regarding children to the husband. Although the Family Code requires all marriages to be filed in civil court, the decision as to whether a marriage will be polygamous or monogamous is limited to men. Divorce must be filed in civil court, but women risk losing alimony and marriage related gifts should they be found guilty of marital desertion (Camara 2007; Scales-Trent 2010).

Reproductive decisions in Senegal also occur within the context of household decisions around land, labor and earnings from agriculture. Over half of all farmers in Senegal are women (Scales-Trent 2010). Although the law grants women and men equal access to land ownership, families often rely on traditional approaches to communally distribute land across households or family units. Under Islamic law, women are not eligible to inherit land from fathers or husbands (Creevey 1996; Scales-Trent 2010). Research on land tenure in sub-Saharan Africa shows that heads of household, who are usually men, are required to allocate plots of family land for cultivation to different family members, including young unmarried men and married women. Women are thus granted cultivation rights to plots of family-owned land through marriage on which they can produce crops. Although women may control the proceeds of crops cultivated on individual plots, the bulk of the proceeds are expected to be reinvested back into the household as food, household items or supplies for children as part of the marital arrangement (Fall 1997; Gray and Kevane 1999; Grigsby 2004; Joireman 2008; Lastarria-Cornhiel 1997).
Marital obligations also require women to comply with husbands’ requests (or demands) for their uncompensated labor on family plots (Scales-Trent 2010).

Ethnographic research on rural farming communities in Senegal demonstrates that in spite of continuing restrictions around land ownership, structural changes in state support for agriculture have offered women greater leverage within the household (Gadio and Rakowski 1999; Perry 2000; Perry 2005). Structural adjustment during the 1980s disrupted the agricultural sector by dismantling state-subsidized cooperatives that had previously facilitated farmers’ access to credit for cash cropping. With reduced access to credit, male farmers were unable to sustain previous levels of agricultural productivity and therefore generated less income. In order to continue supporting their families, rural men began migrating to urban areas in search of wage labor. The withdrawal of state support for cash crops that were primarily cultivated by men coincided with an increasing demand in urban centers for vegetables. Women have responded to these economic shifts by cultivating fewer subsistence crops and more vegetables such as tomatoes, squash, carrots, green beans and cabbage on their individual plots. They have also established a strong presence at weekly rural markets by trading directly with wholesale distributors from urban areas. Women are also engaging in petty trade at the markets through the sale of processed foodstuffs and cooked meals.

Women’s strategies to negotiate resources and responsibilities within unequal gender systems have been called ‘patriarchal bargains’ (Kandiyoti 1988). Through their new roles as cash croppers and traders, women are acquiring more leverage in conjugal relationships and decision-making due to their increasing financial contribution to households. The withdrawal of state support from agriculture has significantly reduced the ability of rural men to support their families through cash cropping. For many families, the income from women’s agricultural
activities has become a critical source of household security. In recognition of their wives’ contributions, men may be more willing to include women in important household decisions (Gadio and Rakowski 1999; Perry 2000; Perry 2005). Similarly, men’s authority to challenge their wives’ trading activities and their movement outside the domestic space is diminished by women’s cash contributions. The following statement by a female informant in an ethnographic study of Wolof farmers aptly captures this situation: “In the past, a woman would pass her husband sitting at the palaver tree and he’d stand up and yell, ‘Where are you going?’ He’d give you a problem if you were leaving the house. Now, they just let you go and don’t give you a problem” (p. 19) (Perry 2005). Although these studies do not directly address fertility, it seems plausible that women’s increased bargaining power within the household might also extend to the realm of reproduction.
(3) Literature Review

This study brings together the sociologies of gender, medicine, reproduction and the professions. I have divided the literature review into three sections that cut across these sociological sub-disciplines. In the first section, I situate my study within sociological literature on the negotiation of medical authority from the theoretical perspectives of medicalization, professionalization, and professional boundary work. I also review the literature on medical professionalization in Africa to explore the relevance of theoretical models developed in the global North to this context. In the second section, I draw on theoretical frameworks from studies of science and technology to explore the transnational politics of manual vacuum aspiration (MVA) technology. These theoretical frameworks include ‘technology in practice’ and ‘the right tool for the job.’ Third, I locate the study in sociological literature on the institutional production and individual experience of stigma related to abortion.

I. Negotiating medical authority

Sociologists have offered various explanations of how the medical profession has gained control over human problems. In this section, I outline three primary understandings of the establishment of medical authority within sociology: medicalization, professional dominance, and boundary work. While studies of the medical profession often draw on all three of these frameworks, I consider the theoretical origins of each as well as points of convergence and contradiction.

Medicalization

Medicalization refers to the increasing authority of the medical profession to define human conditions as illness and subsequently issue treatment. Within this framework, the
medical profession is not simply an occupational group, but an institution actively engaged in regulating social deviance—an ‘institution of social control’ (Zola 1972). The concept of medicalization stood in stark contrast to Talcott Parson’s ‘sick role’ model (Parsons 1951). Like Durkheim, Parsons was preoccupied with social order and thus understood the medical establishment as one of several institutions whose function entailed regulating deviance that threatened social cohesion (Conrad 1992). The sick role entailed a set of social relations and responsibilities between patient and physician designed to manage this deviance. While the sick role absolved the patient of any moral responsibility for his or her illness, it granted absolute authority to physicians not only to define illness but also to regulate the social experience of illness for the patient (Segall 1976).

Sociologists have leveled a long list of critiques against the sick role model. It is poorly equipped to address the roles, responsibilities and experiences of patients and health care workers in cases of chronic or terminal illness. It overlooks patient agency in countering providers’ expertise by seeking alternative medical opinions or even alternative forms of care (Conrad 1992; Hafferty and Light 1995; Young 2004). The sick role also fails to acknowledge how gendered, racialized and classed social contexts shape the medical encounter as well as the illness experience (Lorber and Moore 2002).

Early scholars of medicalization such as Freidson and Zola also understood medicine an institution of social control. However, they rejected the implicit neutrality attributed to the medical establishment by the sick role. The designation of illness required evaluation against a set of norms representing health, normality, and ultimately, desirability. Medicine represented a moral ‘enterprise’ engaged in the definition of desirable ways of being for human beings (Freidson 1988; Zola 1972). This approach emphasized the power relations that shape not only
the medical encounter between individual physicians and patients but also the cultural authority of medical expertise to override human rights: ‘For the medical area is the arena or the example par excellence of today’s identity crisis—what is or will become of man. It is the battleground, not because there are visible threats and oppressors, but because they are almost invisible; not because the perspective, tools and practitioners of medicine and other helping professionals are evil, but because they are not (p. 509) (Zola 1972).’

Contemporary sociologists tend to avoid dwelling on the sinister character of medicalization. To be sure, there is a ‘dark side’ to medicalization (Conrad and Schneider 1992). Medicalization can lead to the individualization of social problems, or ‘blaming the victim.’ This process depoliticizes illness by locating it in the bodies of individuals (often of low social status) while ignoring the social and political inequalities that increase vulnerability to illness (Link and Phelan 1995). The definition of deviance in medical terms further limits authority over diagnosis and intervention to a small number of experts rather than opening up space for public debate. There is also a ‘bright’ side to medicalization, including the decriminalization and destigmatization of certain kinds of deviance.

Peter Conrad, one of the most influential scholars of medicalization in American sociology, is less concerned with medicine as an institution of social control. He emphasizes instead the definitional nature of medicalization: ‘Medicalization consists of defining a problem in medical terms, using medical language to describe a problem, adopting a medical framework to understand a problem, or using a medical intervention to treat it (p. 211) (Conrad 1992).’ Medicalization is better understood as a socio-cultural process, a series of ‘collective and political achievements rather than as inevitable products of the national evolution of society or the progress of medicine (p. xi)(Conrad and Schneider 1992).’ This process may or may not
result in social control, it may or may not be instigated by the medical profession and individual medical doctors may or not be involved (Conrad 1992). Medicalization involves multiple actors and institutions involved in producing and contesting claims to professional control. For example, the expansion of the ADHD diagnosis from children to adults in the 1990s was catalyzed by lay groups who pushed public and professional recognition of ADHD as an adult disability as well as by pharmaceutical companies who manufactured treatment drugs (Conrad and Potter 2000).

Medicalization is not a unidirectional project controlled solely by the medical profession. Some conditions, like childbirth in the US, have indeed been successfully medicalized. While a variety of practitioners managed childbirth until the early 20th century, most were pushed out of obstetric care by physicians (Fraser 1995; Wertz and Wertz 1990). In 2011, nearly all births (98.7%) in the US took place in hospitals. Doctors delivered most of these births (86.1%) (Martin 2013). Yet, upper and middle class birthing women, as active consumers of new, physician-controlled techniques of obstetric care that emerged in the 19th century, also played an important role in the marginalization of traditional midwives (Inhorn 2006; Wertz and Wertz 1990).

Towards the end of the nineteenth century, physicians consolidated professional jurisdiction over abortion by lobbying state legislatures to restrict the provision of abortion to physicians in medical facilities. These measures criminalized the practice of abortion by ‘irregular’ providers such as midwives, pharmacists and homeopathic healers (Luker 1985; Mohr 1978; Reagan 1998). Even before the legalization of abortion upon request in 1973, however, mainstream American medicine distanced itself from this procedure, offering limited training opportunities to medical students and strictly regulating the provision of abortion in hospitals.
(Joffe 1996). Today, free-standing clinics rather than hospitals perform nearly all abortions (93%) in the US (Jones et al. 2008). Physicians who practice abortion may be perceived as less technically competent than their peers who do not. In addition to increasing state restrictions around the practice of abortion, abortion providers in the US are also subject to violence and harassment (Harris et al. 2012; O'Donnell, Weitz and Freedman 2011). Although physicians have medicalized abortion, it remains marginalized from legitimate medical practice (Freedman 2010; Halfmann 2011).

Some forms of deviance, like homosexuality, have been demedicalized. In the late 19th century, medical professionals argued that same-sex conduct was a pathological condition rather than a criminal act. By 1974, however, after years of professional debate, as well as in response to a gay activist movement that rejected the pathologization of homosexuality, the American Psychiatric Association removed homosexuality from the Diagnostic and Statistical Manual of Mental Disease (Conrad and Schneider 1992). Other conditions, like alcoholism, have never been fully medicalized. Although a disease model of alcoholism gained currency after World War II, physicians today may be more likely to refer alcoholics to the self help group Alcoholics Anonymous than to initiate medical treatment (Valverde 1998).

Medical Professionalization

Medicalization, rather than constituting ‘medical imperialism’(Conrad and Potter 2000) unfolds through a series of professional and lay claims to expertise, resources and services. How, then, does the concept of medicalization differ from theories of medical professionalization? Professionalization, after all, refers to the stages involved in the consolidation of professional control. Often cited markers of professionalization include organizational features such as the establishment of professional journals, associations, and legal
monopolies over professional training and practice (Abbott 1988). While there are indeed parallels between the concepts of medicalization and medical professionalization, we must first outline the various ways in which sociologists have understood the meaning and practice of professionalization. In this sub-section, I focus primarily on scholarship on the professionalization of American medicine.

American medicine only rose to professional ‘dominance’ and ‘sovereignty’ in the early 20th century (Freidson 1970; Starr 1982). Until the end of the 19th century, the field of medicine was largely unregulated and a variety of practitioners including physicians, midwives, pharmacists and homeopathic and religious healers offered medical services. The American Medical Association (AMA) was established in 1847 to regulate standards in medical training and practice. In addition to concerns regarding public health, the motivation behind the creation of the AMA most likely included suppressing competition from non-medically trained practitioners. The AMA’s efforts to regulate the practice of medicine through licensing were strongly opposed by the public as well as state legislatures who viewed these measures as elitist and anti-American. Only at the turn of the century did the AMA succeed in convincing state legislatures to grant authority to the medical establishment to control medical practice through licensing. During the first few decades of the twentieth century, the AMA increasingly gained control over medical schools, many of which relied entirely on student fees for support and were therefore lax in enforcing standards of training and practice. By standardizing the training curriculum and establishing minimum requirements for entry and graduation, the AMA established control over entry into the profession as well as content of practice (Conrad and Schneider 1992; Starr 1982).
Various social, demographic and economic factors around the turn of the 19th century also contributed to the establishment of American medicine as an authoritative profession. Public faith in the medical profession strengthened with scientific advances such as the development of germ theory, which led to improved diagnostic and treatment ability. Improved health was widely attributed to medical and public health interventions grounded in germ theory (Colgrove 2002; McKeown 1971). Increasing urbanization, including the development of communication and transportation systems, made medical specialists more accessible to communities. Hospitals, once the sick houses of the poor, became prestigious centers of medical training as well as sites where physicians could treat their private patients. As male physicians gained professional authority and public esteem, women were increasingly marginalized as healers within the household and the community (Conrad and Schneider 1992; Starr 1982).

Freidson characterized the authority of the medical establishment as *professional dominance*. The medical profession had gained control over entry into the profession through licensing measures enforced by the state. It had also established control over the content and practice of professional work such as training curricula and use of technology. The public had expressed confidence in the ability of medical expertise to address a variety of problems (Freidson 1970; Freidson 1988).

While acknowledging the enduring cultural authority of American medicine, other sociologists argue that professional dominance does not account for the social, political and economic restructuring of American medical care in the late 20th century. Under managed care, fee-for-service work decreased as physicians increasingly joined managed care organizations and hospitals as employees. Health management organizations (HMOs) and insurance companies, governed by the imperative to contain costs, gained increasing authority over clinical practice by
regulating prescriptions, the use of technology and patient visits (Starr 1982). Cost containment redrew jurisdictional boundaries between professions as HMOs favored mid-level practitioners such as nurse-midwives rather than specialist obstetrician-gynecologists (Hartley 1999). The rise of powerful medical centers and research institutions brought physicians into conflict with ‘physician administrators’ who prioritized evidence-based medicine over the case-based diagnostic practices of physicians (Hafferty and Light 1995).

The concept of biomedicalization, a complex process that has merged scientific and technological research with biological science and clinical medicine, further challenges the professional dominance model. The medical establishment has become increasingly globalized and corporatized through collaborations between hospitals, laboratories, research centers and corporate biotechnology and pharmaceutical companies around the world (Clarke et al. 2003). This reconfiguration of medicine has been called a ‘biomedical platform,’ a new arrangement of people, equipment, specimens and institutions in which laboratory research meets clinical medicine and the ‘normal meets the pathological’ (Keating and Cambrosio 2003).

The integration of computer technology into clinical practice has increased access to patient records by a variety of institutions. Clinical decisions and protocols are increasingly grounded in outcomes/evidence-based epidemiological research rather than individual, case-based medicine. Physicians’ gatekeeping role to health has eroded as individuals rely on ‘surveillance’ medicine to measure personal risk and regulate their own health. The production and interpretation of medical knowledge is no longer confined to medical professionals. Instead, lay people and patients may access medical knowledge from a multitude of sources including alternative medicine, the Internet and self-help organizations. Direct-to-consumer advertising techniques of pharmaceutical companies have transformed the traditional medical encounter by
empowering the patient to ask their doctor if a particular drug or intervention is appropriate for their reported symptoms (Clarke et al 2003). Social movements organized around illness have harnessed this medical knowledge to challenge medical authority in clinical practice and research. For example, AIDS activists used newly acquired scientific knowledge to question the ‘scientific’ conduct of clinical trials and gain access to life-saving medication (Epstein 1996).

Although biomedicalization challenges the concept of professional dominance, newly available medical knowledge is not equally accessible to all. Similar to other sociologists who argue that access to resources shapes health outcomes (Link and Phelan 1995), Clark and colleagues indicate that biomedicalization is highly stratified as individuals with resources are better equipped to access and apply medical knowledge in the self-regulation of health risks (Clarke et al. 2003).

Medical professionalization in Africa

In his study of the medical profession in East Africa, historian John Iliffe interrogates the relevance of Western sociological models of professionalization to this region (Iliffe 1998). He acknowledges that similar to Western medical professions, the development of the medical profession in Africa rested on a combination of ‘specialized knowledge, altruistic service, thirst for power and blatant self interest’ (p. 3). However, Iliffe argues that in order to understand professionalization in Africa, one cannot limit the analysis to work and jurisdiction but must also examine the constantly evolving relationship between the profession and the state. He suggests that professional work and working conditions are closely bound up with the relationship between the profession and the state. Contrary to Western models of medical professionalization, medical professions in Africa are far from autonomous and rely heavily on the state for professional recognition and support.
Iliffe outlines three major stages in the relationship between medical professions in East Africa and the state. First, medical providers struggled for professional recognition within colonial regimes that discriminated against Africans by restricting private practice to Europeans, maintaining unequal salaries and denying full medical certification to non-Europeans (Iliffe 1998; Patton 1996; Patton 1989). Similar trends were observed in Francophone West Africa as early as 1905, where Africans could train to become medical assistants but not independent physicians (BMJ 1927; Iliffe 1998). In 1918, the French colonial administration established a School of Medicine and Midwifery in 1918 in Dakar. Although Africans often graduated with the same set of competences and responsibilities as Europeans, the colonial administration reinforced a ‘two-tiered system of certification, pay and prestige’ that hindered professional development (Sabatier 1978). Similarly, under the apartheid regime in South Africa, non-European medical professionals experienced limited training and employment opportunities within the medical establishment. Many were restricted from pursuing medical specialization as well as from establishing medical practices in European communities (Digby 2005).

Second, medical professionals in East Africa enjoyed a brief period of state support in the years following independence. Two-tiered systems of certification and salary were abandoned. Medical schools flourished as states tried to increase the number of doctors practicing in newly established health facilities. Professional prestige grew as medical providers designed and implemented public health policies and programs to improve primary health services (Iliffe 1998).

By the 1970s, struggling states slashed health expenditures drastically. This marked the third phase of the relationship between medical professionals and the state. Financial cuts jeopardized the operation of medical schools, research centers and government health facilities
that served as training sites for medical students. The structural adjustment programs (SAPs) introduced in the 1980s by global financial regulation bodies reduced health spending even further, prompting many medical professionals to enter private practice or to leave the country altogether due to deplorable working conditions and unlivable salaries (Hagopian et al. 2005; Iliffe 1998). The neoliberal policies imposed by SAPs also led governments to decentralize health spending to district levels and introduce user fees in public health facilities. Although some medical professionals viewed user fees as a boost to professional morale, others were troubled by the implications of their role within a market-based system that commodified health (Foley 2009; Iliffe 1998). International NGOs accounted for an increasing share of health service provision in areas where government facilities were barely functional. The increasing availability of affordable drugs encouraged the movement of paramedical practitioners such as pharmacists, nurses and medical assistants into private practice, eroding the profession’s ability to control medical technology even further (Iliffe 1998). The state was incapable of enforcing the profession’s monopoly over the content and practice of medicine, the primary markers of professional dominance (Freidson 1970). These trends contributed to the diminished prestige of medical professionals in East Africa.

This brief historical review offers important insight into the relationship between the medical profession and the state in Africa, where little sociological attention has been directed to the professionalization of medicine. Iliffe argues that Western models of professionalization overemphasize professional autonomy and that African medical professionals in particular have experienced a close, if ambiguous, relationship with the state. In addition, the increasing prominence of international NGOs and donors such as the World Bank in designing, funding and implementing health policies and programs in Africa holds important implications for
professional authority and prestige among medical practitioners in this region. My study offers sociological insight into the professionalization of medicine in Senegal by exploring the negotiation of authority between health professionals and the state with respect to abortion. I also explore the negotiation of public health expertise between state health authorities, local and international NGOs and international donors within the context of the national PAC program.

Boundary work

Gieryn used the term boundary work to describe how scientists differentiate their work from non-scientists. He identified three ways in which scientists accomplished boundary work: the expansion of authority into the jurisdiction of another profession of occupation, the expulsion of outsiders through monopolization of professional authority and resources, and protection of autonomy from political interference (Gieryn 1983). Although Gieryn described boundary work as rhetorical practices deployed by scientists in the public sphere in the form of public speeches, popular writing and policy reports, the concept has been used to describe the protection of jurisdiction in various professional and occupational spheres (Lamont and Molnar 2002; Pachucki, Pendergrass and Lamont 2007).

While Abbott cited Gieryn in The System of Professions (1988), he did not explicitly use the term boundary work to describe how professions protect their autonomy. This text challenged professionalization theories that focused exclusively on organizational, structural pathways to professionalization such as the establishment of legal monopolies over professional training and practice or the development of professional associations and journals. In particular, he argued against the notion of professional dominance (Freidson 1970). Instead, he proposed that professions co-existed uneasily in an ecological system in which jurisdictional shifts in one profession or occupation shaped the work practiced by nearby groups. In contrast to Gieryn, he
argued that professional boundary work occurred not only in the legal and public spheres, but also in the daily arena of work. A focus on work permitted analysis of jurisdiction: the profession’s claim to expert knowledge and skills to address a particular human problem. Professionalization unfolded through shifts in and disputes over jurisdictional boundaries among various professional groups. Therefore, there was no such thing as one story of or pathway to professionalization. Professional development occurred in relation to other professions within a broader social, political and economic context. When applied to the medical profession, Abbott’s ecological model of professionalization resembles Conrad’s notion of medicalization as a social process in which multiple actors and institutions participate in establishing or contesting medical definitions of human problems.

In later texts, Abbott cautioned sociologists against taking the existence of professions for granted in the study of jurisdictional disputes (Abbott 1995a; Abbott 1995b). Instead, he argued that what we frequently refer to as the professions were only named after the merging of pre-existing, loosely organized work activities and groups. For example, in the late 19th century, various groups were engaged in activities that only later would be named ‘social work.’ This included the referral of patients by health care professionals to other institutions such as reform houses, or ‘friendly visiting’ by the wealthy to poor people’s homes. By 1920, the profession of social work had been established with many of the typical trappings of professionalization: schools, professional associations and a clearly defined scope of work. Abbott argues that the separation of some activities and groups but not others into a particular social entity constituted a series of jurisdictional boundaries before the emergence of the formal profession of social work.

Abbott’s ecological model allows us to trace how professionalization unfolds through shifting claims to work among multiple, competing stakeholders. Useful examples are the
medical profession’s attempts to claim jurisdiction over alcoholism and hyperactive behavior. Valverde argues that alcoholism has never been entirely located within medical jurisdiction. Instead, she traces ‘hybrid’ forms of jurisdiction over this condition. Throughout the eighteenth and nineteenth centuries, alcoholism was situated uncomfortably between the mind/body dichotomy of the medical model, complicating the medical establishment’s ability to pathologize this condition in a manner than gained cultural acceptance. Physicians competed with non-clinical providers until the early decades of the twentieth century to treat alcoholism. Although medical and epidemiological circles support the addiction model, physicians rarely treat alcoholism. Instead, they refer alcoholics to Alcoholics Anonymous (AA), a ‘hybrid’ organization that combines medicine, psychology, self-help, and non-denominational Protestantism to manage alcoholism. Although AA promotes the definition of alcoholism as a disease, it resists treatment of alcoholism by the medical establishment. Only through recognition of one’s powerlessness in the face of alcoholism can one begin to engage in the mundane, everyday practice of staying sober (Valverde 1998).

In a study of American pediatrics, Halpern suggests that in the post World War II period, academic pediatricians actively sought to expand professional jurisdiction beyond primary care by incorporating psychosocial and behavioral medicine (Halpern 1990). This boundary expansion was prompted by structural conditions that led to a gap between highly specialized training and education and prestigious clinical research at university teaching hospitals and the everyday clinical practice of pediatricians. To avoid the ‘routinization’ of general pediatrics, the profession shifted its boundaries to include challenging ‘social’ problems that were not considered part of primary pediatric care in the first decades of the twentieth century. In spite of this jurisdictional expansion, pediatricians do not regularly treat behavioral problems in daily
practice. Instead, they operate as gatekeepers to and administrators of treatment services offered by less prestigious professions such as social work, psychology and nursing.

Empirical accounts of health care provision illustrate the ‘micropolitics’ of boundary work (Allen 2000) as various types of health care professionals stake authoritative claims over knowledge and tasks in daily practice. In these studies, boundary work occurred through structural and discursive processes.

A study in the emergency unit of a British hospital found that nurses’ detailed examinations during triage frequently influenced subsequent diagnosis and treatment by physicians. Junior physicians often deferred to nurses’ instructions on department and hospital protocol and at times, clinical procedures (Hughes 1988). Another study in Britain found that a state initiative to restructure nursing education and practice offered the profession greater autonomy from physicians with respect to training its members. These new jurisdictional claims fueled tensions between nurses and physicians as well as between nurses and auxiliary health workers who were now positioned to assume tasks previously performed by nurses. In daily practice, physicians asserted professional authority by discursively constructing nursing as mindless, repetitive work. Nurses drew contrasts between the holistic approach of nursing and the individualistic approach of medicine to patient care. At the same time, nurses carefully policed the boundaries between nursing and support work by warning auxiliary health care workers of the legal implications of practicing nursing tasks without proper licensing (Allen 1997; Allen 2000).

In Israel, biomedicine has absorbed complementary and alternative medicine (CAM) in hospitals ‘without a battle’ (Mizrachi and Shuval 2005; Mizrachi, Shuval and Gross 2005). Physicians discursively subordinate CAM in daily discourse as an inferior knowledge system.
CAM practitioners have also been restricted to tasks related to patient care rather than decisions related to diagnosis of pathology and subsequent intervention. In contrast to biomedical practitioners, CAM practitioners were denied access to formal channels of employment at the hospitals. Nurses who practiced both biomedicine and CAM deferred to physicians’ authority in patient care and carefully avoided using CAM terminology when discussing patient treatment with physicians (Shuval 2006).

In a study of the daily practice of pharmacists in the US, boundary work is described as gatekeeping, or the regulation of patient access to resources and services (Chiarello 2013). Medical gatekeeping involves granting patients access to drugs according to the instructions of another gatekeeper, the physician. Legal gatekeeping refers to the ways in which pharmacists monitor patients’ behavior and appearance to assess the legitimacy of their requests for medication. Pharmacists may step outside the boundaries of health care provision to notify the police if they believe the patient intends to abuse prescription drugs.

Scholars of reproduction have identified structural, discursive and gatekeeping forms of professional boundary work around abortion. Around the turn of the 19th century, American physicians obtained legal monopolies over abortion from state governments. Legal abortion was limited to therapeutic procedures controlled exclusively by doctors in hospitals (Joffe 1996; Luker 1985; Mohr 1978; Reagan 1998). Physicians drew on medical as well as social and economic factors in their role as gatekeepers to legal abortion. Reasons for therapeutic abortion ranged from “hyperemesis gravidarum” or excessive nausea and vomiting at the turn of the 19th century, to social and economic deprivation during the Depression. Advances in the medical treatment of conditions such as tuberculosis and kidney disease limited gatekeeping to mental health by the 1950s and 1960s (Joffe 1996).
Medical gatekeeping occurs across a variety of legal settings and may reinforce the social stigma of abortion. In Nicaragua and Israel, committees responsible for approving abortion often draw on moral discourse to make abortion decisions. In Nicaragua, where abortion laws are highly restrictive, these decisions may deny therapeutic abortions to women who are medically eligible (McNaughton, Mitchell and Blandon 2004). In Israel, the abortion law is much more permissive and committees rarely deny women abortions. Yet, committees subject women to extensive interrogation of their sexual and contraceptive practices prior to granting legal abortions (Amir and Biniamin 1992).

Physicians have also used discursive strategies to secure professional authority over abortion. In the US, physicians deployed images of ‘back-alley butchers’ or ‘criminal abortionists’ who extorted, maimed and even killed women to lobby state governments for monopolies over abortion practice (Joffe 1996; Reagan 1998). In countries with restrictive abortion laws, physicians may describe abortion in euphemistic terms such as ‘menstrual regulation’ (Amin 2003; Dixon-Mueller 1988; Pheterson and Azize 2005). In Bolivia, physicians justify therapeutic abortion decisions using humanitarian discourse such as ‘saving women’ (Rance 2005). Physicians may record induced abortions as spontaneous abortions in hospital records (Barreto et al. 1992; Carranza 2007; Kumar, Hessini and Mitchell 2009; WHO 2011a).

The latter example of written strategies reveals an important omission in the literature on boundary work. Little attention has been directed to how documents may be deployed as tools in the negotiation of medical authority. Sociologists have recognized medical records within the range of technologies that organize and accomplish medical practice (Timmermans and Berg 2003). Medical records do not simply represent clinical events. Rather, documents are actively
involved in selectively constructing the official transcript of events they are designed to
document (Berg 1996; Berg and Bowker 1997; Timmermans and Berg 2003).

Medical records produce meaning within the institutional context of the hospital in at
least three ways. First, the medical record is a site where new knowledge about the body is
produced. Medical records remove the body from its social context, deconstruct it into multiple
parts such as cells, veins, tissues or systems and transform these body parts into sites of medical
intervention (Atkinson 1995; Berg and Bowker 1997; Berg and Mol 1998). Although
recordkeeping is embedded in social relations between patient and provider, the reconstruction of
the body into medically actionable terms is performed primarily by medical providers (Berg
1996). Medical providers control both the organization of the record (the questions that are
asked) as well as the manner in which these data are recorded in standardized institutional
documents (Macintyre 1978; McKay 2012).

Second, medical records arrange and enact the organizational context in which they are
deployed. These documents organize and standardize data obtained at various stages of the
medical encounter and from various parts of the clinic (Berg 1996; Berg and Bowker 1997).
Medical providers draw on these data to make medical decisions, which are in turn organized
and executed according to the division of labor within the clinic. Third, medical records connect
the hospital to other bureaucracies involved in health planning such as government health
agencies or health insurance companies (Berg 1996; Berg and Bowker 1997; Heath 1982;
McKay 2012). As the hospital is embedded within a broader institutional context, medical
records tend to produce a rational, standardized account of events that justifies the course of
action taken between diagnosis and treatment. Sociologists suggest that this ‘preferred’ account
of events renders invisible much of the decision-making process, which may be less linear,
formal and physician-dominated than suggested by the record (Berg 1996; Hughes 1988). This is not to suggest that medical records are erroneous, or that medical providers lie when completing them, but that these documents offer a particular representation of events designed to protect medical providers from outside scrutiny.

Although these studies illustrate how medical documents organize and enact medical practice, they do not adequately explain how documents operate as tools in negotiating professional jurisdiction. A study of obstetric care in four African hospitals illustrates the production of the ‘preferred’ account by medical records. In this context of under-resourced and frequently over-burdened health facilities, providers manipulate medical records in order to ‘rewrite’ the enactment of clinical practices (Jaffré 2012b). For example, medical providers complete the partograph, a labor-monitoring tool, after rather than during delivery. This permits providers to rewrite the clinical event to their advantage and deflect responsibility in the case of poor maternal and newborn outcomes.

The documentation of induced abortion in medical records is embedded in social relations between patients and providers. These dynamics unfold within the broader social and legal context of abortion. The underreporting of abortion in medical records complicates efforts to accurately measure the prevalence of induced abortion. Abortion underreporting occurs in at least four ways across a variety of legal contexts. The use of ambiguous language to describe abortion in hospital records such as ‘induced miscarriage’ or ‘missed abortion’ is one example (Barreto et al. 1992; Farquharson, Jauniaux and Exalto 2005; Grimes et al. 2006; WHO 2011a). Second, hospital records account only for women who seek medical care for abortion complications. Estimates of abortion calculated from hospital records represent only ‘the tip of
the iceberg’ regarding the number of safe and unsafe abortions that have occurred in the surrounding community (Grimes et al. 2006; Warriner and Shah 2006).

Third, women who seek treatment may hesitate to reveal to providers that they had an induced abortion due to fear of discrimination and arrest. Research in African countries with restrictive abortion laws shows that women and health providers may report the type of abortion differently (Dao et al. 2007; Taylor et al. 2011). Even in countries with liberal laws, such as Estonia and the United States, the stigma of abortion may limit the disclosure of abortion by women and practitioners (Anderson et al. 1994; Jones and Forrest 1992). A US study found that ethnicity and educational attainment influenced the accuracy of women’s abortion disclosure. Non-white women and women with lower educational attainment were more likely to underreport abortion (Udry et al. 1996). Fourth, medical professionals may deliberately obscure abortion in hospital records. Prior to the legalization of abortion in the United States, some providers altered their records to disguise services related to treating abortion complications or practicing induced abortions (Pelletreau 2003). In Costa Rica, abortion is only permitted to save a woman’s life or preserve her physical health. Yet, physicians in state hospitals may practice clandestine abortion and record the intervention as the treatment of complications (Carranza 2007).

Irrespective of the legal status of abortion, abortion data can be understood as a ‘preferred’ account of procedures related to a practice may be deeply stigmatizing for patients and providers. This study offers insight into how medical providers deploy hospital records as a tool of boundary work between medicine and criminal justice. I show how providers produce a particular account of the type of abortion treated in the hospital through a series of clinical
practices. The obscuration of suspected induced abortion in the record permits providers to circumvent police inquiry at the hospital.

II. Reproductive Technology in Practice

Early medicalization theory understood technology as a primary mechanism of social control by the medical establishment. Monopolies over the tools and techniques of the trade reinforced the professional and cultural authority of the medical institution. The rapid development of medical technology offered new opportunities for social control over human behavior and, since the age of genetic technology, human biology (Conrad 1979; Freidson 1988; Zola 1972). This perspective has been critiqued as a form of ‘technological determinism’ that attributes too much power to technology and focuses on the sinister aspects of controversial techniques such as gene therapy or assisted reproductive technology (Timmermans and Berg 2003).

At the opposite end of the spectrum of studies on medicalization and technology lies a perspective that has been called ‘social essentialism.’ While technological determinism views technology as a ‘driving force’ of medicalization, the social essentialist perspective attributes a much more passive quality to technology. Social essentialist studies focus less on what technology does than on how it generates social meaning in a particular context (Timmermans and Berg 2003). Technologies are ‘black boxed’ as ‘inert, ahistorical objects, uninteresting in and of themselves’ (Casper and Morrison 2010). Barbara Katz Rothman’s study of amniocentesis serves as a useful example of this approach. Rothman argues that amniocentesis alters the experience of pregnancy and motherhood by providing women (and men) with new choices regarding whether or not a pregnancy should be carried to term. While amniocentesis provides women with new reproductive options, it also reinforces the control of reproduction
within the medical domain, including the authority of medicine to distinguish between normal and deviant fetuses (Rothman 1986).

In between technological determinism and social essentialism is another perspective known as ‘technology-in-practice.’ This approach explores what technologies do and the ways in which they participate in and coordinate medical work. Technology is neither the ‘super actor’ of technological determinism that suppresses the agency of patients and professionals nor the ‘blank slate’ of social essentialism that holds meaning only in human interaction (Timmermans and Berg 2003). ‘Technology in practice’ accounts not only for how technology shapes medical practice, but also pays attention to technology in and of itself, including how it is designed and deployed to accomplish particular goals. This approach situates multiple, shifting and competing professional and lay claims to technology within the social, political and economic context of its emergence and subsequent practice. Attention is given to the scientists, government institutions, manufacturing companies, consumers, patients and others that are ‘active around the technology’ (Clarke and Montini 1993; Strickler 1992).

Similar to this approach is Fujimura and Clarke’s concept of the ‘rightness’ of tools, models and techniques developed to address scientific problems. The articulation of the ‘rightness of the tool for the job’ is not limited to scientists within the laboratory but unfolds within a broader social, organizational, political and economic context. Government agencies, manufacturing companies, and consumers with various interests in the tool also participate in the negotiation of its ‘rightness’ (Fujimura and Clarke 1992).

A study of the emergence of Pap smear technology as the global standard for cervical cancer screening illustrates both of these conceptual frameworks. The Pap smear remains the most widely used screening technology around the world despite problems related to its ability to
accurately detect and classify disease. These problems have persisted since the technology entered the market in the 1940s (Casper and Clarke 1988). The Pap smear ultimately became the ‘right tool for the job’ because it served the interests of actors such as the American Cancer Society and the National Cancer Institute that sought simple, affordable technologies that permitted early cancer detection and treatment. The feminization of cytological screening was also key to keeping costs low in mainstreaming this tool into routine gynecological practice. In the absence of a global classification system for Pap smears, clinicians and pathologists in the US must work closely together in ‘locally negotiated arrangements’ (p. 273) to ensure accurate smear readings.

Research on abortion technology suggests that the ‘rightness’ of the job complicates the mainstreaming of the tool outside the laboratory. RU-486, a chemical form of first-trimester abortion, was available in France as early as 1988. Abortion is a very common medical procedure in the US. Three in ten American women will terminate a pregnancy by age 45 (Jones et al. 2008). RU-486 offered a safe, effective chemical alternative to a commonly practiced surgical procedure. Yet, the US Federal Drug Administration (FDA) did not approve this drug for domestic use until 2000 (Joffe and Weitz 2003).

Controversies about abortion technology must be situated within broader objections to this practice as a violation of widely held assumptions about femininity, sexuality and motherhood (Luker 1985; Petchesky 1990). Various groups in the US were involved in articulating the rightness or wrongness of RU-486 for performing abortion. Reproductive scientists heralded the drug as scientific progress: the ‘second generation pill’ (p. 49). Medical groups supported RU-486 as an effective alternative to surgical abortion. Physicians argued that the FDA ban on the drug curtailed professional autonomy with respect to prescribing RU-486 for
abortion or other medical conditions. Feminist and women’s health organizations understood RU-486 as a drug with the potential to enhance women’s reproductive autonomy. Although prescribed by a physician, RU-486 offered women more control over the abortion experience.

For the anti-abortion lobby, RU-486 made a morally reprehensible practice entirely too easy for women and health care professionals (Clarke and Montini 1993). In response to pressure from anti-abortion groups, the FDA implemented an import ban on RU-486 that was only lifted in 1993 during the Clinton administration. Although clinical trials had demonstrated the safety of the drug by 1996, RU-486 was not released to the market until 2000. The FDA eventually dropped the requirement that only physicians trained in surgical abortion could administer the drug (Joffe and Weitz 2003). In 39 states, however, physician-only laws continue to limit both surgical and chemical abortion to licensed physicians (Guttmacher 2013a).

The rightness or wrongness of RU-486 articulated by various groups ‘active’ around the drug is inextricably linked to the broader politics of abortion in the United States. From the perspective of scientists, medical groups, family planning advocates and feminist organizations, RU-486 was the right tool for the job. Anti-abortion activists argued that the job itself, abortion, rendered any tool, and a chemical technology in particular, unacceptable. The integration of a safe, effective abortion technology into medical practice has been constrained by the social controversy surrounding one of the most commonly practiced medical interventions in the United States.

Manual Vacuum Aspiration: the right tool, but for which job?

I turn now to the literature on the primary technology of interest in my dissertation, manual vaccum aspiration (MVA). MVA was introduced to Senegal in the late 1990s, but the story of MVA begins much earlier in the global North. This is a story of technological
innovation and reconfiguration to adapt not only to shifting clinical situations but also to changes in the social, economic and political context of abortion (Tunc 2008). MVA’s story involves the blurring of clinical, legal, professional and transnational boundaries with respect to abortion. Although MVA technology offered a faster, easier and cheaper alternative to dilation and curettage (D&C) (the standard abortion technology in the US until the early 1970s), the development of the earliest MVA syringe and cannulae by a non-physician destabilized the boundaries of physicians’ jurisdiction over abortion. In contexts where abortion was illegal, the technological capacity of MVA challenged the boundaries between the right job (treating complications of abortion or uterine pathologies) and the wrong job (terminating pregnancy). Population control and reproductive health advocates would argue that this was the ‘right’ tool for the job. The distribution of this technology by the Office of Population of the US Agency for International Development (USAID) to developing countries for the purposes of ‘menstrual regulation,’ a euphemism for abortion, prior to the legalization of abortion in the US, suggests that MVA crossed transnational and often contradictory abortion jurisdictions. The uptake of MVA by aid agencies such as USAID, and later, Ipas, suggests that this technology straddled the boundaries between two competing visions of the relationships between medical technology, gender, population and development: population control and reproductive health. Tracing how MVA moved across these boundaries is critical to understanding the circumstances under which MVA arrived in Senegal in the first place, as well as the troubled politics of this technology in this context since its introduction in 1997.

A Scottish physician, Sir James Young Simpson, was the first to develop a syringe technique to induce menstruation in 1863. By the early twentieth century, physicians in Europe and the United States were using manual aspiration devices for diagnosing uterine pathologies.
They were also using them to treat conditions such as amenorrhea (absence of menstruation) or dysmenorrhea (painful menstruation), which were often euphemisms for inducing abortion. As induced abortion was legally permitted only under limited circumstances in hospitals across most of the US, physicians were reluctant to admit using the technology for off-label purposes (Joffe 1996; Tunc 2008). In the 1920s, Russian physician S. G. Bykov was the first in the international medical literature to indicate openly that manual vacuum aspiration devices could be used effectively to terminate pregnancy (Joffe 1999; Tunc 2008). By the early 1930s, physicians replaced manually operated syringes with motorized, electric pumps to conduct aspiration. Physicians across the US began to use these devices to treat complications of incomplete abortion as well as to conduct endometrial biopsies. However, these devices were not widespread as physicians continued to experience difficulty with calibrating the vacuum. In most hospitals, D&C remained the primary method for conducting therapeutic abortions and treating abortion complications.

Although Chinese and Russian physicians continued to experiment with and refine electric vacuum aspiration technology for the purposes of induced abortion during the 1950s and 1960s, it was not until the late 1960s that this technology was formally introduced to American gynecologists (Tunc 2008). At a 1968 conference sponsored by the Association for the Study of Abortion, a group of American physicians involved in advocacy to decriminalize abortion, Yugoslavian physician Franc Novac demonstrated the latest iteration of vacuum aspiration technology. He delivered a powerful technological rationale for replacing D&C with vacuum aspiration: “When the gynecologist who knows only the conventional D&C method first sees the apparatus in action, he is impressed by the cleanliness, apparent bloodlessness, speed, and simplicity of the operation. While a D&C gives the impression of rude artisan’s work, an
abortion performed with suction gives the impression of a simple mechanical procedure (Joffe 1996).” By the early 1970s, this technological innovation had replaced D&C for conducting therapeutic abortions in the US. The state-by-state decriminalization of abortion in the early 1970s, coupled with the uptake of the technology by aspirator manufacturers around the country, led to the mainstreaming of electric vacuum aspiration into American medicine (Tunc 2008).

But what about MVA, the electric vacuum aspirator’s predecessor? Ironically, scholars often credit Harvey Karman, a quintessential lay ‘abortionist,’ for facilitating the entry of electric vacuum aspiration into mainstream American medicine as well as for rekindling interest in manual vacuum aspiration technology, this time for the developing world. Karman, who studied psychology as an undergraduate at UCLA, began performing illegal abortion in California in the 1950s and 1960s. Although he initially helped women obtain abortions in Mexico, he eventually began to practice abortion himself. In 1955, he was charged with murder and illegal abortion and served two years in prison when one of his ‘patients’ died of infection (Goldberg 2009). Keen to develop better abortion technology, Karman created a plastic cannula that differed from the metal and plastic curettes that were being used with electric vacuum aspiration in one important respect: it was bendable. The softness and flexibility of the Karman cannula reduced the risk of uterine perforation, facilitated the attachment and removal of the device from the electric aspirator, and could be used with local or no anesthesia. By the early 1970s, Karman managed to gain the support of prominent gynecologists involved in advocacy to liberalize abortion laws as well as to improve abortion technology (Joffe 1999; Joffe 1996; Tunc 2008). Some gynecologists were troubled by Karman’s past as an illegal, lay ‘abortionist,’ as well as by his encouragement to non-physicians to use this technology. Indeed, the ease and simplicity with which vacuum aspiration could be used to terminate pregnancy threatened the long-standing
authority of the medical profession over this procedure. Nevertheless, these qualities were equally appealing to physicians who, no longer limited to performing therapeutic abortions in hospitals, were eager to adopt faster, more efficient, and safer abortion methods.

Physicians were not the only ones interested in revolutionary abortion technology. In addition to the flexible cannula, Karman also developed a prototype for today’s MVA syringe. USAID’s Office of Population, eager to develop abortion technology for low-resource settings, contracted an American aspiration manufacturer (Battelle Corporation) in the early 1970s to re-engineer Karman’s device for mass production (Goldberg 2009). Although abortion was still legally restricted across much of the US until the early 1970s, the US government had been engaged in a different fertility politics beyond its own borders. As early as the 1950s, the US government had expressed concern about the potentially disastrous social, political, economic and environmental consequences of population growth in the global South. Against the backdrop of the Cold War and rapid decolonization, population growth was perceived as a precursor to widespread political instability in the newly formed nations of Asia, Africa and Latin America. At the same time, demographers, economists and development experts argued that population growth hindered economic development. The obvious solution to these problems was to regulate population growth. Population control approaches relied on modern contraception, disseminated widely and cheaply, to regulate fertility. For countries receiving population aid from USAID and other population assistance agencies, progress was measured in meeting demographic targets such as reduced fertility rates and women or couples actively using modern birth control (Curtis 2007; Dixon-Mueller 1993; Goldberg 2009; Greenhalgh 1996; Hartmann 1995b; Hodgson and Watkins 1997; Kabeer 1994).
By the 1970s, USAID was promoting and financing family planning programs around the world. The Office of Population also supported research and development of abortion technology such as MVA, which was found to be well-suited for ‘rudimentary’ clinical settings lacking electricity (Sinding 2001). Although abortion was not yet legal in the US, the director of the Office of Population had ordered 1000 MVA kits, known euphemistically as ‘menstrual regulation kits,’ and distributed them to health practitioners worldwide (Dixon-Mueller 1993; Goldberg 2009; Joffe 1999). A physician who attended a 1972 meeting on abortion sponsored by USAID described the prominence of the kits: ‘It was about abortion technology in the Third World. USAID had literally rooms full of these kits! The kits consisted of the 50cc syringe, a variety of cannulae and instructions on how to do abortions. This was an international meeting. People came from the Pacific Basin, from all over Latin America. It’s incredible to think of AID spending this kind of money now on that (Joffe 1996)’

USAID’s role in distributing MVA technology was short-lived. In 1973, the same year that the Supreme Court struck down legal barriers to first-trimester abortion in Roe v. Wade, Congress passed the Helms Amendment which prohibited the use of federal funds for abortion services, technologies or devices in foreign countries. The Helms Amendment was the first in a series of policies that restricted American support of abortion services, research and advocacy abroad, including the Mexico City Policy and the Kemp-Kasten Amendment (Crane 1994; Crane and Dusenberry 2004; Curtis 2007; Dixon-Mueller 1993; Kulczycki 1999). The manufacture and distribution of MVA kits was transferred to an abortion research and advocacy group based in Chapel Hill, North Carolina called the International Pregnancy Advisory Service or Ipas.

In the 1990s, Ipas and other agencies involved in the global Safe Motherhood initiative rebranded MVA kits as the technology of choice for post-abortion care in the developing world.
The qualities of MVA that had made it the right tool for job for advocates of population control in search of appropriate abortion technology—safe, easy to use by physicians and paramedical professionals, and amenable to low-resource settings lacking electricity—were equally attractive to international agencies and local health authorities interested in reducing maternal mortality due to complications of unsafe abortion in low-income countries and countries with restrictive abortion laws.

However, MVA now operated firmly within the boundaries of a new population paradigm that emerged during the 1994 International Conference on Population and Development in Cairo, Egypt. Known as the reproductive health paradigm, this feminist approach rejected population control and its methodology of meeting demographic targets as a solution to economic underdevelopment. Instead, this approach called for population strategies that situated fertility and reproduction within the broader social and economic contexts of women’s lives. Rather then striving towards numeric goals of fertility reduction or contraceptive uptake, family planning programs should focus on women’s sexual and reproductive needs and intentions. The reproductive health paradigm also rejected the narrow conception of women’s health in population and development policy and discourse that was often limited to concerns related to motherhood. Women’s health initiatives should address not only family planning, pregnancy and childbirth, but also sexual health, sexually transmitted infections, abortion and chronic disease such as mental illness and cancer. Part of this approach called for greater global attention to mortality and morbidity related to unsafe abortion (Dixon-Mueller 1993; Hartmann 1995b; Kabeer 1994; Kulczycki 1999; Lane 1994). MVA was thus championed over D&C as the easy-to-use, woman-friendly technology in the treatment of abortion complications.
Although the Helms Amendment prohibits USAID from purchasing MVA kits, the agency has supported PAC programs in over 40 countries around the world, including Senegal (Curtis 2007). Currently, PAC activities are being implemented in approximately 50 countries in Africa, Asia and Latin America. Nearly half of the NGOs involved in these activities receive USAID funding (PAC-Consortium 2012). My study explores how transnational politics around abortion, reproduction and population have shaped the circulation and utilization of MVA within Senegal’s national PAC program.

III. Abortion Stigma

The concept of stigma comes from Erving Goffman’s scholarship on the social construction and management of deviance. Stigma referred to an ‘attribute’ that ‘discredited’ a person in the eyes of others. Goffman identified at least three types of stigma: physical disabilities such as blindness; ‘blemishes of individual character’ such as mental illness, unemployment or political radicalism; and ‘tribal stigma’ of race, nationality and religion. Regardless of the source, stigma discredited the individual because it rendered him or her ‘undesirably different.’ Although Goffman described stigma as an individual trait, he also articulated the relational nature of stigma: ‘The term stigma, then, will be used to refer to an attribute that is deeply discrediting, but it should be seen that a language of relationships, not attributes, is really needed. An attribute that stigmatizes one type of possessor can confirm the usualness of another, and therefore neither is creditable nor discreditable as a thing in itself (p. 3)(Goffman 1963).’ In other words, the stigma of the stigmatized is socially constructed in relation to attributes that are deemed normal and desirable in the stigmatizer.

Social scientists have used the concept of stigma to understand a remarkable variety of health and social experiences, including urinary incontinence (Sheldon and Caldwell 1994),
HIV/AIDS (Parker and Aggleton 2003), epilepsy (Kleinman et al. 1995), and non-heteronormative family formation (Herdt and Kertzner 2006). In their seminal essay on stigma, Link and Phelan parse the concept of stigma into four components: labeling human differences; linking human difference to undesirable attributes, or stereotyping; the separation of social labels into the categories ‘us’ and ‘them’; and status loss and discrimination associated with undesirable social categories (Link and Phelan 2001). By operationalizing the concept of stigma into four separate processes, Link and Phelan highlight the social context of stigma. Stigma is not simply a thing that belongs to or can be observed in individuals. Rather, people come to be stigmatized through a variety of social pathways.

The authors also clarify the role of power in defining and reinforcing stigma. The ability to define a particular human trait or condition as undesirable requires social, economic and political power. It is power that makes negative stereotypes ‘stick.’ Power entails the ability to discriminate against or limit access to important resources such as health care, employment, housing and education from those in the socially undesirable category of ‘them’ (Link and Phelan 2001).

Kumar and colleagues argue that in contrast to other health related stigma, abortion stigma has been poorly theorized. The concept of stigma may help explain the controversy around this common and safe medical procedure (Kumar, Hessini and Mitchell 2009). Approximately one third of pregnancies worldwide end in stillbirth, miscarriage or induced abortion. Among these pregnancies, more than half are terminated through induced abortion (WHO 2011a). In the US, a quarter of women will have an abortion by age 20, and 30% by age 45 (Henshaw 1998; Jones and Kavanaugh 2011). With a risk of complications estimated at less than 0.05%, abortion is one of the safest medical procedures when performed appropriately.
(Weitz et al. 2013). Yet, this procedure is legally restricted across much of the globe. Nearly 20% of women worldwide live in countries where abortion is prohibited altogether or permitted only to preserve the woman’s life. An estimated 20 million women each year resort to unsafe abortion. Most of the 47,000 women who die every year from unsafe abortion live in developing countries (WHO 2011a).

In line with Goffman’s concept of stigma as a discrediting attribute, Kumar and colleagues define abortion stigma ‘as a negative attribute ascribed to women who seek to terminate a pregnancy that marks them, internally or externally, as inferior to ideals of womanhood (p. 4).’ Abortion violates widely held ideals of femininity that restrict female sexuality to procreation and view motherhood as inevitable and instinctive (Kumar, Hessini and Mitchell 2009).

Scholars of reproduction have documented the role of gender relations in historical and contemporary abortion politics in the US. Until the end of the 19th century, abortion was widely practiced by a variety of practitioners. Physicians across the country lobbied state governments to restrict abortion practice to therapeutic procedures controlled exclusively by doctors (Joffe 1996; Luker 1985; Mohr 1978; Reagan 1998). The physicians’ campaign to establish professional control over abortion unfolded within a broader demographic context of falling birthrates and eugenic concerns regarding ‘race suicide’ for native-born white Americans. Physicians garnered additional political support for their quest to restrict abortion among those who feared middle class white women were not having enough babies (Dixon-Mueller 1993; Hodgson and Watkins 1997; King and Ruggles 1990).

Towards the end of the 20th century, the abortion debate has been increasingly defined in oppositional terms between the rights of the fetus and the woman (Petchesky 1990). The
personhood of the fetus is a relatively recent idea. Until the end of the 19th century, the fetus was not considered a child until the woman perceived fetal movement, known as ‘quickening.’ Abortion was morally acceptable until this point, which for some women, would have been well into the second trimester of pregnancy. Contemporary constructions of abortion as the ‘murder’ of the fetus are grounded in modern definitions of femininity and sexuality. In anti-abortion gender ideology, motherhood is not only women’s biological destiny, but also their social and moral duty. Femininity is equated with nurturing, selflessness and self-sacrifice. Women are supposed to put the needs of children and family ahead of their own. Women who have abortions challenge the inevitability of motherhood and are thus unfeminine and deviant.

Anti-abortion activists have also depicted women as hapless victims of organizations like Planned Parenthood that provide abortion services. Legal restrictions on abortion are portrayed as helpful measures to save women from making poor choices. The paternalistic view of women’s limited capacity for decision-making was articulated in the 2007 Gonzalez v. Carhart ruling that upheld the ban on ‘partial birth abortion’ on the grounds that women eventually ‘regret’ their decisions (Joffe 2010).

Empirical studies of pro- and anti-choice abortion activists in the US have shown that the abortion controversy echoes broader debates about the meaning and value of women’s social duties and obligations (Luker 1985). For anti-choice activists, womanhood and motherhood were inseparable. Motherhood and domesticity were the most important parts of a woman’s life. Abortion and even contraception threatened the value of women within marriage and society because they stripped men of their responsibility for sexual activity. For pro-choice activists, motherhood was just one of many ways in which women could contribute to society. Abortion and contraception secured women’s ability to participate in society beyond the domestic sphere.
Anthropologist Faye Ginsburg locates the abortion debate within a much longer national conversation about gender relations in American society (Ginsburg 1998). Women have mobilized for social change according to various constructions of gendered rights and obligations. Throughout much of the 19th century and into the early 20th century, the biological destiny of motherhood and the separation of women’s private, domestic sphere from the public sphere were understood as a significant source of political power for middle class white women activists. The duty of motherhood and domesticity offered women the moral authority to demand state protection of women, children and families, and for suffragists, the right to vote.

Although abortion stigma is grounded in social norms and expectations regarding gender, it is experienced differentially across time and place. Rather than constituting a universal fact, abortion stigma is locally produced (Kumar, Hessini and Mitchell 2009). In Scandinavian countries, where abortion is less legally restricted than in parts of Western Europe and the United States, women who choose abortion are still expected to demonstrate their contrition (Løkeland 2004; Scharwächter 2008). Zambia’s abortion law is among the most permissive in Africa. Yet, Zambian women continue to resort to clandestine and unsafe abortion due to the shame of abortion. Women who have induced abortions are considered to be infectious to sexual partners, neighbors and medical providers (Koster-Oyekan 1998; Webb 2000). Similar findings about the infectiousness of abortion have been reported in Malawi (Levandowski et al. 2012). Studies in Cameroon and Ghana have found that while abortion is shameful, the shame of extra- or premarital childbirth is greater. Discreet abortions are preferable to parenthood outside of marriage (Bleek 1981; Johnson-Hanks 2002).

Kumar and colleagues use Link and Phelan’s 4-part model of stigma to illustrate the local production of abortion stigma. In the first step, women who seek induced abortion are labeled as
different from women who do not. Next, abortion is linked to a set of undesirable characteristics. Women who have abortions may be seen as selfish, dirty, promiscuous, evil, sinful, murderous and irresponsible (Ganatra and Hirve 2002; Levandowski et al. 2012; Payne et al. 2013; Schuster 2005; Shellenberg et al. 2011; Whittaker 2002). Married women who have abortions may be seen as unfaithful to their husbands or lacking the self-control required to appropriately space pregnancies (Bleek 1981; Levandowski et al. 2012). In the third step, women who have abortions are marked as *deviant* from women who do not have abortions. Finally, women who have abortions may experience overt discrimination and loss of status, including public shaming, expulsion from school, abuse, rejection, poor quality of and excessive fees for abortion services, and poor treatment from medical providers during the treatment of abortion complications (Kumar, Hessini and Mitchell 2009).

Using this model of abortion stigma, Kumar and colleagues proposed the concept of the abortion *prevalence paradox* (Kumar, Hessini and Mitchell 2009). When abortion is believed to be uncommon, women who have abortions are perceived as deviant and may face discrimination. Women subsequently underreport abortion because they fear discrimination. The absence of data on induced abortion reinforces the notion that abortion is rare. This cycle of silence obscures the frequency of abortion as well as the reasons why women have abortions. Women seek abortion to ensure the health of other family members, including small children (Guttmacher 1999). In the US, 60% of abortion patients are already mothers. Nearly three-quarters of women obtaining abortions report a religion affiliation (Jones, Finer and Singh 2010). Women who have had abortions often carry subsequent pregnancies to term (Winikoff 2007). In other words, women who have abortions do not differ from other women in any meaningful
ways. Women negotiate abortion, like other reproductive events, in tandem with a complexity of personal, family and community factors.

Some scholars have called for a clearer distinction between abortion stigma and discrimination. Abortion stigma, like other health-related stigma, can be experienced in the absence of overt discrimination (Deacon 2006; Shellenberg et al. 2011). Women may internalize abortion stigma even if they do not confront open discrimination, violence or poor treatment. Women who have had abortions report feelings of shame, judgment, guilt and sadness. The expectation that they will experience discrimination may lead women to seek clandestine abortion services even when safe abortion is available in hospitals, report the abortion as a miscarriage to health professionals when seeking care for complications, or avoid seeking health care altogether (Bleek 1981; Johnson-Hanks 2002; Levandowski et al. 2012; Payne et al. 2013; Shellenberg et al. 2011). For example, a study of abortion in Ouagadougou, Burkina Faso estimated that 60% of women who had an induced abortion experienced complications. Among those women, only 14% were estimated to have received hospital treatment for complications (Rossier et al. 2006).

Health care providers are also subjected to abortion stigma. Prior to the legalization of abortion in the United States, abortion practice was strongly associated with images of ‘back-alley butchers’ or ‘criminal abortionists’ who extorted, maimed and even killed women desperate to terminate unwanted pregnancies. In both professional and lay communities, abortion providers were perceived as ‘just one step above a pervert, or a child abuser” (Joffe 1996; Pelletreau 2003). The anti-abortion lobby continues to apply this label to all abortion practitioners. Abortion is still perceived as morally corrupt, ‘dirty work’ when equated to murder (Joffe 2010; O’Donnell, Weitz and Freedman 2011). Abortion practice still marks abortion
providers as technically inferior to physicians in other areas of medicine (Harris et al. 2011; Harris et al. 2012).

Abortion providers may also experience stigma in the form of violence, harassment and humiliation. Since 1977, the National Abortion Federation reports that 8 murders of abortion workers, 17 attempted murders, 426 death threats, 42 bombings, 181 cases of arson, and nearly 1500 cases of vandalism have occurred in the US (NAF 2012). In Mexico, where abortion is legal to save the woman’s life and in cases of rape and incest, physicians providing legal abortion report extreme forms of disapproval from colleagues such as being harassed and called “murderer” at work (Mollmann 2006). Nigerian physicians reported that professional reputation and disapproval from colleagues were more important disincentives against performing abortion than the risk of arrest and prosecution (Okonofua et al. 2005). In Ghana, the spending habits of physicians known to provide abortion are derided by the community as being supported by ‘blood money’ (Payne et al. 2013).

The stigma of abortion provision may discourage health care providers from disclosing abortion practice in professional and lay circles (Freedman 2010; Harris et al. 2011; O’Donnell, Weitz and Freedman 2011). Harris and colleagues apply the concept of the prevalence paradox (Kumar, Hessini and Mitchell 2009) to abortion work. Providers’ silence regarding abortion work reinforces the mistaken notion that abortion practice among health professionals is unusual or deviant. At least 14% of gynecologists in the US practice abortion (Stulberg et al. 2011). Even in countries with restrictive abortion laws, abortion practice is not rare among providers. In Nigeria, where abortion is only permitted to preserve a woman’s life, a survey of 323 private physicians indicated that nearly 25% induced abortion upon the patient’s request (Okonofua et

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5 Dr. George Tiller, shot and killed at his church in Wichita, Kansas in May 2009, was the eighth abortion provider to be murdered in the US.
al. 2005). In Brazil, where abortion is legal only to preserve the woman’s life and in cases of rape or incest, a survey of 572 obstetricians and gynecologists showed that 33% had ever performed an abortion (Goldman et al. 2005).

Harris and colleagues suggest that in addition to producing a prevalence paradox, the silence around abortion also gives rise to a paradox of legitimacy. The silence around abortion work strengthens the stereotype that abortion providers are not only deviant but also substandard medical practitioners. The notion that abortion provision is illegitimate medical practice encourages the marginalization and harassment of such practitioners as well as the emergence of restrictive legislation. To avoid harassment and professional marginalization, providers avoid disclosing their abortion work (Harris et al. 2012).

The legitimacy paradox suggests that the experience of abortion stigma extends beyond individual medical providers. The US offers an excellent example of the institutional reproduction of abortion stigma through laws and policies that have marginalized abortion from mainstream medicine since the 20th century. Until the 1970s, legal abortion throughout much of the United States was limited to administratively approved therapeutic abortions performed by physicians in hospitals (Joffe 1996). The American Medical Association (AMA) liberalized its position on abortion in 1970 to permit abortion when ‘in the best interest of the patient.’ This shift came in response to data from New York and Washington, DC that showed that abortion could safely be performed in a small number of clinics and hospitals rather than integrated generally into obstetric and gynecological practice. By 1980, 75% of abortions were done in free-standing clinics rather than hospitals (Halfmann 2011).

Between the legalization of abortion in the US in 1973 and 1989, states passed more than 300 pieces of legislation restricting abortion (Halfmann 2011). Laws that aim to regulate the
circumstances under which abortion is practiced are known as Targeted Regulation of Abortion Providers (TRAP). For example, 14 states currently require physicians to have admitting privileges at a nearby hospital. In 26 states, abortion facilities are required to meet the structural standards of ambulatory surgical centers (ASC). Up to 24 states have specific requirements regarding the corridor width or the procedure room size (Guttmacher 2013b). Pro-choice activists argue that TRAP laws subject abortion providers to different and more burdensome legal requirements than other medical providers. These laws do not increase the safety of abortion provision. Instead, they curtail physicians’ ability to offer legal abortion services, which in turn, limits women’s access to safe, legal services (Joffe 2010).

Other restrictive practices include mandatory informed consent and waiting period laws. In 17 states, providers are required to give patients scientifically unproven information on the association between abortion and breast cancer, the ability of the fetus to feel pain, or the association between abortion and psychological distress. In 26 states, women have to wait 24 hours after counseling before having the abortion (Guttmacher 2013a; Joffe 2010).

Anti-abortion laws are also enacted at the federal level. The Helms Amendment (1973) forbids the use of federal funds for the purchase of abortifacient technologies overseas. The Hyde Amendment (1977) forbids the use of Medicaid for abortions for low-income women (Halfmann 2011). The Mexico City Policy of 1984 prohibited the use of federal funds for abortion related services, research and advocacy overseas (Cohen 2000; Crane 1994; Crane and Dusenberry 2004; Kulczycki 1999).

In a recent empirical study of 40 physicians and administrators from four residency programs around the country, sociologist Lori Freedman suggests that fear of anti-abortion violence and harassment only partially explains why physicians without moral objections to
abortion do not perform this procedure. Abortion stigma in the institutional structure and culture of medicine discourages physicians from practicing abortion (Freedman 2010). Especially for those practicing in small towns or politically conservative communities, the label of ‘abortionist’ could lead to devastating professional and financial consequences such as loss of clients and employment. Physicians encounter direct threats from colleagues. One physician was told by the older physician he was replacing in a group practice that ‘if I ever found out you did elective abortion any time in your professional life, you’ll never practice medicine [in this state] again. Do you understand that (p. 99)?’ Another physician who prescribed Cytotec (Misoprostol) to her patient encountered a pharmacist who not only refused to fill the prescription but also threatened to ‘put her name on the Web (p. 101).’

Formal and informal policies within private practice groups, HMOs and hospitals also constrain abortion practice. Some physicians reported being told explicitly that they could not perform abortion for any reason, including fetal anomalies like Down Syndrome. While some doctors were informed of these policies during the hiring process, others encountered them during practice. No-abortion policies were in place even in group practices and hospitals with no religious affiliation. Another barrier to abortion practice was conscientious refusal from paramedical staff. Even in practices and hospitals without explicit no-abortion policies, physicians tended to refer patients to specialized abortion clinics to avoid delays involved in obtaining the administrative approval required to perform legal abortion. They believed that patients received faster, more emotionally supportive care at specialized clinics. Managed care organizations also encouraged patient referral because abortion clinics offered low-cost abortion services.
The stigma of abortion within the organizational structure and culture of medicine have marginalized this practice within mainstream medicine. In small, politically conservative communities, abortion services are in short supply because physicians may feel too professionally vulnerable to practice abortion. In larger, more liberal areas, physicians ‘pass the buck’ as abortion services are already adequately provided by large teaching hospitals and abortion clinics (Freedman 2010). The shunting of abortion services from hospitals to clinics means that these clinics account for a disproportionate amount of abortion provision. Currently, most abortions (93%) in the US are performed in specialized clinics (Jones et al. 2008). These clinics are often highly visible and have been targets of anti-abortion violence and harassment since the legalization of abortion in 1973.

Summary of contributions

My research demonstrates how medical and public health professionals in Senegal have attempted to claim authority over abortion through the treatment of abortion complications. I draw on boundary work theory to illustrate the strategies deployed by state health officials and providers to define post-abortion care as a medical rather than a legal or moral affair. I offer three important contributions to scholarship on jurisdictional debate over abortion. First, while sociologists have extensively documented jurisdictional struggles over induced abortion, I show that the mundane affair of treating abortion complications is also a site of medical boundary work in Senegal among health providers, state health officials and personnel from local and international NGOs. Second, I demonstrate in Chapter 7 examples of discursive, written and clinical boundary work accomplished in the hospital to protect medical autonomy from legal interference. Of particular significance are my findings regarding the medical record as a tool of
jurisdictional negotiation. Third, my research shows that boundary work is accomplished
transnationally as Senegalese medical professionals and state health officials negotiate national
and global abortion policies in the daily practice of PAC and management of the national
program.

In Chapter 6, I explore the transnational negotiation of the ‘rightness’ and ‘wrongness’ of
MVA for PAC in Senegal among state health officials, local and international health
organizations, donor agencies and medical professionals. Global discourse on reproductive and
maternal health has championed this device as the best technology for treating abortion
complications in low-resource settings. In a country where induced abortion is prohibited, MVA
has challenged the boundaries between right jobs (treating abortion complications) and wrong
jobs (terminating pregnancy). Anxieties regarding MVA’s capacity to induce abortion have
prevented the integration of this technology into standard medical supply systems. I demonstrate
how medical professionals in state hospitals negotiate various interpretations of the ‘rightness’ of
MVA during the daily treatment of abortion complications.

My research also contributes to the study of gender relations in medicine and global
health by exploring the production and experience of abortion stigma within Senegal’s post-
abortion care program. In Chapter 5, I show how the discursive representation of PAC as an
intervention for mothers, through political alignment with Safe Motherhood and the deployment
of certain data, has reinforced the separation of abortion from legitimate medical care. Chapter 6
explores how abortion stigma has shaped the politics of MVA distribution and utilization. The
incongruence between MVA policies, discourse and practice at various levels of the health
system reinforces gender and economic inequalities in access to health care. In Chapter 7, I
show how abortion stigma is reinforced in daily practices related to treatment and record keeping.
in health facilities. Together, these chapters demonstrate how PAC reinforces national and global gender inequalities in health care by prioritizing care for particular kinds of women (mothers). They also show how institutional practices at the level of the Ministry of Health and daily practices in the health facility have contributed to both the prevalence and legitimacy paradoxes of abortion in Senegal. Finally, this study illustrates how abortion stigma moves across national borders in the form of anti-abortion American development aid policies that reinforce Senegal’s national prohibition on abortion.
(4) Methodology

How does one study abortion in a place where it is legally prohibited? The social stigma related to induced abortion makes this practice notoriously difficult to document both epidemiologically and ethnographically (Barreto et al. 1992). Still, scholars have found creative ways to study the practices and experiences related to abortion among women and various types of practitioners. In Europe and the US, archival research and retrospective interviews have reconstructed the practices of physicians and other types of practitioners who provided illegal abortion and women who sought abortion services prior to legalization (Greenhalgh 1995; Joffe 1996; Kligman 1998; Luker 1985; Pelletreau 2003; Reagan 1998).

In sub-Saharan Africa, where abortion is still largely prohibited, social scientists have managed to prospectively study women’s experiences related to illegal abortion (Bleek 1981; Johnson-Hanks 2002; Rossier 2007; Rylko-Bauer 1996; Schuster 2005). Few studies of abortion in Africa, however, have captured the perspectives of health professionals. Operations research on post-abortion care has documented providers’ clinical experiences and practices related to this particular model of care. Yet, this research does not address what it means professionally and personally to treat complications of abortion in a setting where induced abortion is illegal. Indeed, in most operations research reports on PAC, induced abortion is the ‘elephant in the room’ in spite of the fact that PAC has been implemented precisely to address mortality and morbidity related to unsafe abortion.

While drawing on this rich tradition of research, this study adopts a different methodology to studying abortion in an illegal context. By focusing on post-abortion care, the treatment of the complications of miscarriage or induced abortion, I take somewhat of an indirect approach to studying the social and institutional relations of abortion in Senegal. Post-
abortion care is a completely legal public health intervention supported by the government and its local and international partners in reproductive health care. By studying the daily and institutional practices of post-abortion care, and in particular the discursive and technical strategies deployed by health professionals and Ministry of Health officials to separate this procedure from induced abortion, this project offers insight into the meaning and structural location of abortion within medical and public health practice. At the same time, a study of legal post-abortion care offered a less threatening forum for research participants to discuss their perceptions and experiences regarding induced abortion.

In this sense, I draw on the work of anthropologist Susan Greenhalgh, who conducted demographic research in collaboration with state health officials in China while simultaneously observing the reproductive strategies deployed by couples to circumvent the One Child Policy to meet their desired fertility goals (Greenhalgh 1994). Greenhalgh’s work both supported and subverted dominant demographic policy in China. Similarly, my research, pitched to health authorities as an opportunity to evaluate the current delivery of PAC, both supported and challenged the contradictory medico-legal framework of abortion and post-abortion care in Senegal.

I accomplished this project through an institutional ethnography of the national PAC program in Senegal. Developed by Canadian sociologist Dorothy Smith, this method of social inquiry locates everyday experience and embodied knowledge within the social ‘relations of ruling.’ Originally conceived as a feminist ‘sociology for women,’ this method examined the ‘standpoint of women’ within and outside the ruling apparatus (Smith 1993; Smith 1987; Smith 1990). Institutional ethnography has since evolved to investigate more broadly how institutions coordinate people’s everyday experiences. This approach entails a concern with the processes of
work, and the texts and discourses that organize work within social institutions (DeVault 2006; Grace 2013; Grahame and Grahame 2007; Smith 2005). Work is taken as a ‘point of entry’ into the ‘social life’ of the institution (DeVault 2006). The researcher uses documents and texts that organize and coordinate work activities to map relations of power between and among those who work within the institution and those who interact with or are acted upon by the institution as clients or partners.

In her essay titled ‘Textually mediated organization,’ Dorothy Smith states ‘the text does not appear from nowhere (Smith 1993).’ The task of the institutional ethnographer is to situate texts within the social context of their production. The institutional ethnographer does not accept texts as objective accounts of social relations within a particular institution. Instead, she explores the practices, discourses and technologies involved in the production and reproduction of texts such as reports, articles, manuals, medical records, clinical tools and institutional guidelines to trace social relations of work within and beyond the institution.

In this study, I triangulate interviews and observation with various texts to investigate how PAC is understood, implemented and practiced from various standpoints within the network of actors and institutions involved in reproductive health care in Senegal, including the Ministry of Health, local and international organizations, medical professionals, and criminal justice authorities. These texts include clinical guidelines, reports on operations research, epidemiological reports, medical records and legal records of prosecuted abortion. This approach offers a glimpse of the inner workings of this public health intervention in Senegal—the multiple forms of work practiced by various actors to treat patients, develop and enforce clinical norms and protocols, plan and monitor activities, collect and interpret data and circulate and utilize technology. I explore the production of the account of abortion treated in hospitals--
the number and type of abortions and patients—as well as what the account renders visible or invisible through various process of inscription. This approach also links the work activities and discourses of study participants to the broader social, political and legal context of post-abortion care, in which the intersection of local and global abortion politics also influences the organization of medical and public health practice.

This project emerged from a combination of previous professional experience and preliminary research activities conducted in Senegal as a doctoral student. Between 2004 and 2006, I worked as a University of Michigan Population Fellow for Management Sciences for Health (MSH), an American organization contracted by the USAID to support the Senegalese Ministry of Health in its family planning and maternal health programs. Included in MSH’s portfolio was training, supervision and monitoring and evaluation of the national PAC program. It was during this time that I experienced firsthand the intersection of local and global abortion politics. Abortion in Senegal is illegal, but the treatment of abortion complications is permitted. USAID supported contraception, obstetric care and post-abortion care, but not services related to induced abortion because of the Helms Amendment. My suggestions to supplement our operations research with qualitative research on health professionals and induced abortion were immediately quelled by MSH headquarters in Cambridge, MA as well as my Senegalese colleagues in Dakar.

As a doctoral student, I aimed to pursue my research interests in medical providers and abortion further. In my dissertation proposal, I hypothesized that PAC operated as a site of *de facto* abortion in a setting with a highly restrictive abortion law. I aimed to use the concept of boundary work to study how PAC enabled providers to practice an illegal procedure in plain sight. As soon as I began my dissertation research, I quickly realized that I was asking the wrong
question. Medical providers and health officials did not perceive PAC as de facto abortion. In fact, these individuals worked very hard to separate induced abortion from post-abortion care. My project, thus, became an investigation of the boundary work that is deployed to distinguish between these two practices. I aimed to study what fell within and beyond the boundaries of acceptable PAC practice, as well as how the policing of this boundary occurred at the intersection of local and global abortion politics.

I have divided this chapter into eight sections. First, I describe the timeline of research activities in Senegal and the US. Second, I explain the selection of hospitals for observation of PAC services. Third, I describe the study population, including sampling and recruitment strategies and sample characteristics. Fourth, I explain the methods and tools of data collection. Fifth, I discuss the analysis and triangulation of multiple forms of data. Sixth, I explain administrative procedures, including research ethics approval, funding and fieldwork assistance. Seventh, I describe various methodological limitations. I end with a brief discussion of ethical and ethnographic challenges encountered in the field.

1. Timeline of research

During my University of Michigan Population Fellowship, I established important relationships with key individuals in the Ministry of Health as well local and international health NGOs in Senegal and the US. I also established a network of colleagues in the fields of public health and medicine that provided invaluable technical guidance during the dissertation project. During the summer of 2009, with support from a Dissertation Proposal Development Fellowship from the Social Science Research Council, I conducted preliminary fieldwork to assess the feasibility of dissertation research on abortion and PAC in Senegal. I interviewed 39 key
informants from government Ministries, professional medical and legal associations, local and international organizations, l’Université Cheikh Anta Diop, the national assembly, women’s groups, and the Senegalese press. These interviews provided a critical background on abortion politics in Senegal as well as the current state of the country’s PAC program. In addition, most informants believed that an ethnographic research project on PAC was both feasible and timely given the significant contribution of unsafe abortion to maternal mortality in Senegal.

I returned to Senegal in the summer of 2010 to develop my research protocol for the research ethics committee of the Ministry of Health. I obtained feedback on the protocol and data collection instruments from local advisors. The local advisors also provided guidance in the selection of hospitals for the observation of PAC services. Two of my local advisors, both former colleagues at MSH who now worked at the World Health Organization and the Faculty of Medicine at l’Université Cheikh Anta Diop, respectively, contributed letters of support to my application to the research ethics committee of the Ministry of Health. This combination of previous professional experience with an extensive preliminary research period funded by predoctoral fellowships from the NICHD, the SSRC and Columbia University’s Institute of African Studies fostered an in-depth knowledge of the social, political and historical context of post abortion care. It also greatly facilitated access to key individuals in the Ministry of Health, l’Université Cheikh Anta Diop, international and local NGOs and other civil society associations, all of which contributed to a highly productive and relatively smooth fieldwork experience.

I arrived in Senegal in early November 2010. By December, I started conducting in-depth interviews with individuals in Dakar. Hospital fieldwork began in January 2011 and continued for six months until July 2011. While conducting research at each hospital, I also

2. Selection of hospitals for observation of PAC services

I selected three health facilities for direct observation of PAC services, collection of PAC and abortion statistics, and interviews with health professionals. The first was a tertiary level, regional hospital in the region of St. Louis; the second was a secondary level district hospital in the region of Thiès; and the third was a district hospital that was recently converted to a tertiary level hospital in the region of Dakar (see map in Appendix 2). The first hospital was located in one of Senegal’s largest northern towns. The second hospital was located in a small town that is rapidly growing due to its proximity to one of Senegal’s most popular beach destinations for tourists. The third is located in a densely populated, peri-urban district outside the capital city of Dakar. These facilities were selected because they offered a large caseload of PAC patients, a diversity of health professionals and because each was located in a region in which the Ministry of Health collaborates with different NGOs in the implementation and evaluation of reproductive health care, including post-abortion care. The first hospital was located in a region that receives technical support in reproductive health programs from UNFPA; the second was located in a region supported by USAID; and the third was in a region that since 2008 has received PAC support from Ipas. In addition, I selected the third facility because of its rich institutional PAC
memory. This hospital has been providing PAC services since it served as one of the first three operations research sites in 1997. It briefly operated as a depot for the national supply of MVA kits. It is also a major training site affiliated with the national university teaching hospital.

When I first submitted my research protocol to the Ministry of Health, I identified four facilities for observation of PAC services. In addition to the three facilities described above, I selected a fourth hospital in the city of Dakar. A small district hospital in a residential neighborhood, this facility was to serve as a comparison to the large tertiary hospital in the peri-urban district outside Dakar. After conducting fieldwork in the first two hospitals, I decided, in consultation with my dissertation adviser and local advisers, to limit the observational portion of the study to three hospitals in order to ensure enough time to complete the rest of the data collection. Furthermore, the third hospital offered many more PAC cases for observation.

In order to gain the perspectives of health providers from the primary and secondary levels of the health system, I interviewed two providers from a health center and a rural health clinic in the region of St. Louis and four providers from three health clinics in the region of Thiès. In addition, I interviewed a provider from a tertiary level hospital in the region of Thiès. However, direct observation of PAC services and collection of PAC and abortion data were limited to the three hospitals described above.

3. Study population, sampling approach and sampling characteristics

The study population comprised of two primary groups: (1) PAC practitioners directly involved in PAC service delivery or program planning, and (2) key informants from various government agencies, research agencies, civil society organizations and health facilities. The first group included medical professionals, Ministry of Health officials and personnel from
NGOs. The study recruited nurses, midwives and physicians involved in PAC services in the three regions of study. Ministry officials were recruited from district, regional and central levels of the Ministry of Health. The study recruited participants from local and international NGOs and donor agencies involved in PAC activities, including the World Health Organization (WHO), the United Nations Fund for Population (UNFPA), the United States Agency for International Development (USAID), Intrahealth, CEFOREP, Ipas, Gynuity Health Projects, Marie Stopes International and Child Fund. A description of agencies can be found in Appendix 3.

Key informants included scholars from l’Université Cheikh Anta Diop and representatives of the Ministry of Culture and Gender, local research organizations and medical and legal professional associations. I also interviewed police commissioners from three districts of the region of Dakar, practicing judges at the regional tribunal and members of the national assembly. A list of key informants appears in Table 4.

There are several important differences between PAC practitioners and key informants. First, PAC participants were directly involved in PAC services or programming. I therefore asked these participants specifically about practices, perceptions and experiences related to post-abortion care. Although key informants were aware that my project was on post-abortion care, these interviews focused more broadly on their professional experiences with respect to induced abortion. For example, my interviews with police officers explored how they manage cases of illegal abortion, from the moment they learn about such cases, to the investigation and arrest of suspects. Second, although I conducted in-depth interviews with both groups of participants, interviews with key informants tended to be less formal and structured than with PAC practitioners. I only audio-recorded interviews with PAC practitioners. Transcripts from
interviews with key informants were reconstructed from handwritten notes taken during the interview. Third, I did not collect socio-demographic information from key informants as systematically as I did for PAC practitioners. I collected this information from PAC practitioners in order to facilitate an analysis of the institutional workings of this program at various levels of the health system and among various types of medical and public health practitioners. In contrast, key informants were selected to provide broad insight into the social, political, legal and religious context of abortion from multiple key professional and institutional perspectives.

**Sampling and recruitment**

I used theoretical sampling to select PAC participants. Theoretical sampling differs from traditional statistical sampling in a number of ways. First, rather than sampling to ensure statistical representation of populations of interest, this methodology samples ‘concepts derived from data (Corbin and Strauss 2008).’ Theoretical sampling thus involves searching not only for people, but also places and situations that will yield information about the concepts of interest. Second, unlike statistical sampling in which the data are often collected before analysis begins, theoretical sampling occurs alongside of data collection and analysis. Analysis starts immediately after the first round of data collection. In my case, this included observing a high-level conference on maternal mortality shortly after my arrival in December 2010 as well as several interviews with NGO personnel. These data are examined for concepts, which lead to more questions, and more data collection to address these questions, and more analysis, and so on. Sampling occurs alongside data collection and analysis until the research has reached the point of saturation, in which all relevant concepts are identified and explained in a way that
provides a multi-faceted, in-depth response to the research question (Bernard and Ryan 2009; Corbin and Strauss 2008).

When I began the hospital fieldwork, my initial sampling categories included gender, profession (midwife, physician, nurse) and region of practice as social structural axes along which respondents are hypothesized to understand, practice and experience PAC and abortion. After several weeks of observation and both formal and informal interviews, I realized that the type of uterine evacuation training received by health professionals (on-the job, in school, or in external seminars organized and financed by international NGOs) influenced their perceptions and practices related to PAC. I therefore made sure to include providers with various training backgrounds in the sample of interviewees at each hospital.

As I noted different responsibilities among health providers with regard to managing MVA technology at the health facility as well as handling and reporting suspected cases of induced abortion, I sampled by job description among physicians and midwives in order to capture both supervisory and regular clinical staff within the sample. Although I initially restricted my sample of interviewees to health professionals at the hospitals sites where I simultaneously conducted observation of PAC services, my sampling approach rapidly evolved to include health providers at other types of health facilities that offer PAC services. My observation sites included two tertiary level hospitals and a secondary level district hospital. I interviewed health professionals at a district health center and a health post in the first region; and a tertiary level hospital and two health posts in the second region. Table 1 displays the number and type of health professionals interviewed in each region according to health facility. By the end of my fieldwork, my sampling categories for practicing health providers broadened to include type of PAC training, job description, region of practice and type of health facility.
Howard Becker’s concept of ‘the hierarchy of credibility’ served as an important guiding principle in the theoretical sampling of PAC practitioners in the Ministry of Health and NGOs. When sampling within institutions, Becker wryly notes: ‘the trick for dealing with the hierarchy of credibility is simple enough: doubt everything anyone in power tells you (Becker 1998).’ Such an attention to power is particularly important in an institutional ethnography of PAC that aimed to understand how this model is defined, understood, implemented and practiced at various levels of the health system. I sampled Ministry of Health officials and NGO personnel according to profession, gender and institutional status. This latter category was designed to capture the perspectives of officials from various levels of the Ministry of Health (district, regional and national) as well as those of Senegalese and expatriate personnel from international NGOs and donor agencies that support PAC. Table 2 displays the number and type of professional at each
level of the Ministry of Health. I included multiple international NGOs and donor agencies to study the relations between local and global abortion politics and local and external PAC expertise. Table 3 lists the profession, nationality and institutional affiliation of NGO participants.

**Table 2: Number, institutional affiliation and profession of Ministry of Health officials by region**

<table>
<thead>
<tr>
<th>Region</th>
<th>St. Louis</th>
<th>Thiès</th>
<th>Dakar</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central (Division de la Santé de la Reproduction)</td>
<td>3 doctors</td>
<td>3 midwives</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Regional</td>
<td>1 doctor</td>
<td>1 midwife</td>
<td>1 midwife</td>
<td>4</td>
</tr>
<tr>
<td>District</td>
<td>1 midwife</td>
<td>1 doctor</td>
<td>1 midwife</td>
<td>3</td>
</tr>
<tr>
<td>Totals</td>
<td>2</td>
<td>2</td>
<td>9</td>
<td>13</td>
</tr>
</tbody>
</table>

**Table 3: Number, profession, institutional affiliation, nationality and location of NGO personnel**

<table>
<thead>
<tr>
<th>Number and Type of Professional</th>
<th>Nationality</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Local</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CEFOREP</td>
<td>2 demographers</td>
<td>Senegalese</td>
</tr>
<tr>
<td><strong>International</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child Fund</td>
<td>1 midwife</td>
<td>Senegalese</td>
</tr>
<tr>
<td>Gynuity Health Projects</td>
<td>1 program officer</td>
<td>American</td>
</tr>
<tr>
<td>Intrahealth</td>
<td>2 midwives</td>
<td>Senegalese</td>
</tr>
<tr>
<td></td>
<td>1 demographer</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 pharmacist</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 doctor</td>
<td></td>
</tr>
<tr>
<td>Ipas</td>
<td>1 midwife</td>
<td>Senegalese</td>
</tr>
<tr>
<td></td>
<td>1 doctor/program officer</td>
<td>Ghanaian</td>
</tr>
<tr>
<td></td>
<td>1 doctor/program officer</td>
<td>Kenyan</td>
</tr>
<tr>
<td></td>
<td>1 executive officer</td>
<td>American</td>
</tr>
<tr>
<td>Marie Stopes International</td>
<td>1 executive officer</td>
<td>Dutch</td>
</tr>
<tr>
<td>UNFPA</td>
<td>1 doctor/program officer</td>
<td>Senegalese</td>
</tr>
</tbody>
</table>
I used both purposive and snowball sampling to select key informants (Aday and Cornelius 2006). I used purposive sampling to select key informants according to their knowledge and professional experience regarding social, cultural, political and legal dimensions of abortion in Senegal. Snowball sampling occurred when I recruited individuals to the study who had been recommended by other PAC participants and key informants. Table 4 lists key informants by gender, institutional affiliation and nationality.

**Table 4: Gender, profession, institutional affiliation and nationality of key informants**

<table>
<thead>
<tr>
<th>Gender</th>
<th>Institutional Status</th>
<th>Nationality</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>F</td>
<td>Senegalese</td>
</tr>
<tr>
<td>2</td>
<td>F</td>
<td>Senegalese</td>
</tr>
<tr>
<td>3</td>
<td>M</td>
<td>Senegalese</td>
</tr>
<tr>
<td>4</td>
<td>M</td>
<td>French</td>
</tr>
<tr>
<td>5</td>
<td>M</td>
<td>Senegalese</td>
</tr>
<tr>
<td>6</td>
<td>M</td>
<td>Senegalese</td>
</tr>
<tr>
<td>7</td>
<td>F</td>
<td>Senegalese</td>
</tr>
<tr>
<td>8</td>
<td>F</td>
<td>Senegalese</td>
</tr>
<tr>
<td>9</td>
<td>F</td>
<td>Senegalese</td>
</tr>
<tr>
<td>10</td>
<td>F</td>
<td>Senegalese</td>
</tr>
<tr>
<td>11</td>
<td>M</td>
<td>Senegalese</td>
</tr>
<tr>
<td>12</td>
<td>M</td>
<td>Senegalese</td>
</tr>
<tr>
<td>13</td>
<td>F</td>
<td>Senegalese</td>
</tr>
<tr>
<td>14</td>
<td>M</td>
<td>Senegalese</td>
</tr>
<tr>
<td>15</td>
<td>F</td>
<td>Senegalese</td>
</tr>
<tr>
<td>16</td>
<td>F</td>
<td>American</td>
</tr>
<tr>
<td>17</td>
<td>F</td>
<td>Senegalese</td>
</tr>
<tr>
<td>18</td>
<td>M</td>
<td>Senegalese</td>
</tr>
<tr>
<td>19</td>
<td>M</td>
<td>Senegalese</td>
</tr>
</tbody>
</table>
I recruited all participants to the study in person or via telephone or email. As part of the recruitment process, I described the study objectives to potential participants. For potential PAC practitioners, I framed the overarching goals of the study in terms of improving post-abortion care. For key informants, I described the project as a study of the social, political and legal aspects of abortion. I asked individuals if they would be interested in participating in the study by conducting an interview. I offered to share hard or electronic copies of the authorization for the study issued by the Ministry of Health. If the individual consented to participating, I scheduled a date for a face-to-face interview. Prior to the interview, participants signed a consent form.

**Sample characteristics**

The total sample size was 89, including 66 PAC practitioners and 23 key informants. The majority of the sample was female (64%). Among the PAC participants, the average age was 45.8 years. Table 5 shows the gender profile of PAC practitioners. This sample was mostly female (70%). Table 6 shows the type of provider within the PAC participant sample. Midwives, all women, accounted for the majority of this sample (62%). The sample of health providers is overwhelmingly female because most PAC services are provided by midwives at tertiary, secondary and primary levels of the health system.

**Table 5: Gender profile of PAC practitioners by institutional affiliation and profession**

<table>
<thead>
<tr>
<th>Gender Profile</th>
<th>Total</th>
<th>% Men (N)</th>
<th>% Female (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Providers</td>
<td>36</td>
<td>22(8)</td>
<td>77 (28)</td>
</tr>
<tr>
<td>MOH officials</td>
<td>13</td>
<td>38 (5)</td>
<td>62 (8)</td>
</tr>
</tbody>
</table>
Table 6: Type of health provider

<table>
<thead>
<tr>
<th>Type of Provider</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctor</td>
<td>10</td>
<td>27</td>
</tr>
<tr>
<td>Midwife</td>
<td>23</td>
<td>62</td>
</tr>
<tr>
<td>Nurse</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>36</td>
<td></td>
</tr>
</tbody>
</table>

Table 7 displays the distribution of PAC practitioners across the regions of study. The majority of practitioners (27%) were located at the national level in the city of Dakar, while the rest were evenly distributed across the regions of St. Louis, Thiès and Dakar. Less than 1% of the sample was located outside of Senegal.

Table 7: PAC practitioners by region and institutional affiliation

<table>
<thead>
<tr>
<th>Health Providers</th>
<th>Region of St. Louis</th>
<th>Region of Thiès</th>
<th>Region of Dakar</th>
<th>National Dakar</th>
<th>International</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Providers</td>
<td>12</td>
<td>11</td>
<td>13</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Ministry of Health</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>NGOs</td>
<td>1</td>
<td></td>
<td>12</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>14</td>
<td>15</td>
<td>16</td>
<td>18</td>
<td>4</td>
</tr>
<tr>
<td>%</td>
<td>21</td>
<td>21</td>
<td>23</td>
<td>27</td>
<td>0.06</td>
</tr>
</tbody>
</table>

Table 8 displays the uterine evacuation training background of health professionals among the PAC practitioners. Nearly 40% of the sample (midwives and doctors) had received MVA training in a seminar, while 19% (midwives) were trained on-site. A small percentage of the sample, 11%, had received no training in MVA. This group was comprised entirely of nurses. 14% of the sample, comprised entirely of midwives, was trained only in digital curettage.

Table 8: Training in uterine evacuation among health professionals
<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital curettage in school (midwives)</td>
<td>5</td>
<td>14</td>
</tr>
<tr>
<td>MVA in school (doctors)</td>
<td>7</td>
<td>19</td>
</tr>
<tr>
<td>MVA Seminar (midwives and doctors)</td>
<td>14</td>
<td>38</td>
</tr>
<tr>
<td>MVA and EVA on-site (midwives)</td>
<td>7</td>
<td>19</td>
</tr>
<tr>
<td>No MVA training (nurses)</td>
<td>3</td>
<td>8</td>
</tr>
</tbody>
</table>

A little over half of key informants (52%) were men. About a quarter (27%) worked for law enforcement, judicial or legislative authorities. Nearly another quarter (23%) worked for local or international NGOs involved in reproductive health or gender equality. About 18% of key informants belonged to professional medical associations. Three key informants (13%) were professors at l’Université Cheikh Anta Diop (anthropology, sociology and religion). About 18% of the sample had cross-cutting affiliations between l’Association des Juristes Sénégalaises and l’Université Cheikh Anta Diop, the Ministry of Gender, and the judicial branch of the region of Dakar. With the exception of one key informant from Venture Strategies, located in the US, all key informants were based in Senegal.

4. Data collection methods

I used five primary methods of data collection: 1) direct observation of PAC services at three hospitals; 2) a review of PAC and abortion records at three hospitals; 3) in-depth interviews with PAC practitioners and key informants; 4) a literature review of abortion and PAC from medical, public health, social science and media sources; and 5) an archival review of court records at the regional tribune of Dakar. While I describe each method separately in a subsection below, I used these methods concurrently during my fieldwork. At each hospital, I simultaneously observed PAC services, reviewed PAC records, and conducted formal and informal interviews with health providers. While stationed at the hospitals in the first two regions, I traveled to neighboring health facilities to interview additional health providers. I also
interviewed Ministry and NGO personnel in these regions during this time. On weekends, I returned to Dakar, where I interviewed Ministry officials, NGO personnel and key informants stationed in this city. Although I had obtained much of the PAC and abortion literature during my preliminary research phase, I returned to this literature throughout my fieldwork to inform the data collection process. The legal archival review began after the completion of fieldwork at the three hospitals. However, I continued to conduct interviews with PAC practitioners and key informants in Dakar during this time.

Direct observation

I conducted direct observation at each facility for a period of 8 weeks. During this period, I observed how and where health professionals provided PAC services, including treatment and family planning services. I mapped the layout of the maternity ward as well as the movement of PAC patients and providers throughout the ward. I observed the utilization and storage of MVA technology. I noted the division of labor between different types of providers as well their clinical decision-making processes. For example, unlike doctors, midwives often performed the same cleaning tasks as nurses and nursing assistants. At the third hospital, doctors recorded MVA cases in a register specific to MVA, while midwives recorded digital curettage cases in the main PAC register in the delivery room. The head midwife at this facility transferred cases from the MVA register to the main PAC register.

As I was based in the maternity ward at each hospital, I observed a considerable number of normal deliveries. I observed several stillbirths, and one maternal death at the second hospital. I did not observe any Caesarean sections as I was not given access to the operating theater at any of the hospitals. I observed 54 women treated with MVA, and one with EVA. After several weeks of fieldwork, providers began to farm out small ‘tasks’ to me, such as
bringing blood samples to the laboratory, shredding cotton gauze, and placing lubricating oil on
the MVA syringe. At each hospital, providers joked that after spending so much time in the
maternity ward, I should be able to manage both deliveries and MVA procedures. The head
gynecologist at the first hospital asked me if I wanted to do family planning counseling, but I
declined. Although I developed a good rapport with most of the personnel at these hospitals, at
each site I encountered at least one provider who made it very clear that they did not wish to be
interviewed through continued postponement of the interview. In such cases, I limited my
interaction with them to informal conversations.

I observed interactions between providers and patients as well as between different types
of providers. I attended early morning meetings between gynecologists and midwives at first and
third hospital sites. During these meetings, health providers reviewed cases from the day before
with the head gynecologist. The doctor would then ask providers for further information about
the case, and issue instructions for further care if necessary. Staff meetings were not regularly
held at the second site.

At each hospital, I began the observation period by following providers around the ward
and asking questions and engaging them in informal conversation when possible. During these
moments, I asked them to explain what they were doing, or I asked them to weigh in on my
observation of their peers’ actions. I often took my meals with providers in the hospital cafeteria
or in the break room in the maternity ward. I also spent time with providers during their down
time in the break room, drinking tea, gossiping, and watching television. In fact, it was often
during these moments that people revealed the most interesting tidbits of information. For
example, a janitor at the first hospital claimed, in contrast to what midwives had conveyed to me,
that the hospital had indeed contacted the police when confronted with a case of suspected
induced abortion several months earlier. At the second hospital, a community health worker indicated that some health providers offered to purchase medication from the pharmacy on patients’ behalf, inflating the price so that they could pocket the difference. At the third hospital, a nursing assistant responsible for the MVA room reported that she had been taught to use the technology by a physician. I discreetly recorded observations in a notebook and typed up these field notes immediately after leaving the hospital.

At the first hospital, I observed both day and night shifts. Observing the night shift was possible at this site because I was lodged at the hospital. At the second and third hospitals, I was lodged a 15 and 40 minute taxi ride away, respectively. I decided against pursuing nighttime observation to ensure my personal safety.

I carried a notebook in my pocket during hospital fieldwork. Every twenty minutes or so, I would remove myself from the delivery room and jot down my observations for about five minutes before returning to continue observation. On some occasions, when I was having an informal conversation with a provider and the material was highly technical, I would record their response during the exchange. The first few times I observed MVA, I recorded the procedure as it unfolded, with the permission of the patient and the provider. Otherwise, I did my best to log my observations away from treatment rooms. I transferred my field notes into Word documents immediately upon leaving the hospital each day and categorized them by day and by month.

I paid special attention to PAC cases that were flagged as ‘suspicious’ by health providers. For example, at the first hospital, I observed three cases in which the head gynecologist instructed midwives to ‘re-interrogate’ a PAC patient because of the circumstances surrounding the abortion. I spoke to several midwives to obtain their perspectives on the case. I also noted how these cases were recorded in the registers.
Towards the middle of the observation period at each hospital, I divided my time between observing the maternity ward and reviewing PAC records. During the last two or three weeks of fieldwork at each hospital, I conducted in-depth interviews simultaneously with observation. At the end of my fieldwork, I shared some preliminary findings with hospital staff. At the first hospital, I shared these results during a morning staff meeting. At the second and third hospitals, I shared my findings with the head gynecologist and midwife. Not wanting to draw undue attention to the obscuring of suspected cases of induced abortion that I observed in the PAC registers, I focused these debriefing sessions primarily on findings that could be used to improve family planning services.

Although most of the observation component of the project took place in the three hospitals, a few observation events emerged fortuitously, as is often the case in projects guided by theoretical sampling (Corbin and Strauss 2008). First, about a week after arriving to Senegal in November 2010 and establishing contact with my local advisers, I was invited to present my dissertation research at an international conference on maternal mortality sponsored by UNFPA. This conference provided an excellent opportunity to network with Francophone researchers working on reproductive health all over West Africa. I also noted that while family planning figured prominently on the agenda, my paper was one of the only presentations on abortion or post-abortion care at the conference.

The second opportunity arose during my fieldwork at the second hospital. I traveled to a satellite office of Child Fund in the town where the hospital was located in order to obtain contact information for the program officer at the headquarters office that I wished to interview. While at the satellite office, I met several community health workers who invited me to accompany them on a field trip to a rural health clinic and a rural health hut in a neighboring
district. In addition to learning about Child Fund’s community-based approach to post-abortion care during this field trip, I also interviewed a nurse at a health clinic who reported that his head district officer had authorized, against the policy of the Ministry of Health, the utilization of MVA at his facility. I report these findings in Chapter 6.

The third opportunity took place in June 2011 when I was invited by an Ipas program officer to attend a planning meeting of their stakeholders. Ipas had funded a situational analysis on unwanted pregnancy and unsafe abortion in 2010 that was coordinated by the *Division de la Santé de la Reproduction* or DSR. The purpose of the meeting was to disseminate the results among relevant stakeholders and determine the next steps. I observed quite a few of my study participants in attendance at this meeting. Most interestingly, as I listened to representatives of the DSR and Ipas, I discerned significant tensions between the PAC philosophies of these two agencies. These findings are reported in Chapter 5.

Last, during an interview with a key informant who happened to be the head of the national professional nursing association, I had the opportunity to speak with a group of nurses. After I conducted the interview with the key informant in his office at the association’s headquarters, he introduced me to a room full of his peers who were in a meeting. What started as an interview with one nurse turned unexpectedly into an informal focus group discussion with about 10 nurses. I report these findings in Chapter 6.

*Review of PAC and abortion records*

Institutional ethnographer Marjorie Devault referred to the capacity of documents to coordinate and accomplish work activities as ‘the organizing power of texts (DeVault 2006).’ In this study, I investigate how texts across a variety of institutional settings produce knowledge about abortion. I placed significant emphasis on studying PAC recordkeeping practices and texts
at my observation sites. At each of the observation hospitals, I reviewed PAC-specific registers as well as abortion statistics in annual hospital reports. I recorded delivery statistics as well in order to calculate the proportion of admissions to the maternity ward attributable to abortion. At the first and third hospitals, I also obtained district and regional PAC data on number of abortion treated and number of cases treated with MVA. Table 9 displays the sources of data and the time period reviewed for each source at each hospital.

Table 9: Review of PAC and abortion data at 3 hospitals

<table>
<thead>
<tr>
<th>Hospital 1</th>
<th>PAC registers at observation hospitals</th>
<th>Hospital abortion data</th>
<th>District and regional PAC data</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Region of St. Louis)</td>
<td>January 2009-February 2011</td>
<td>2005-2010</td>
<td>2008-2010 (regional)</td>
</tr>
<tr>
<td>Hospital 2</td>
<td>January –December 2007; January 2009 –April 2011</td>
<td>2004-2011</td>
<td>N/A</td>
</tr>
</tbody>
</table>

To ensure comparability across hospitals, I focused on the same indicators between 2009 and 2010. For each month of data in these registers, I recorded the total number of PAC cases treated as well as the method of uterine evacuation for each case. As both physicians and midwives practiced PAC at the third hospital, I made note of the provider who treated each case. I recorded the type of abortion recorded as well as any other terminology used to describe the case. Throughout my review, I asked providers to explain terminology used to classify and describe abortion as well as omissions in the register. Drawing on formal and informal interviews with providers, I flagged and made note of cases that exhibited indicators in the register that would likely have been considered suspicious. Examples of such indicators include marital status, age, type of abortion, time of arrival, profession, related complications, and length of gestation. I also flagged cases in which these indicators were omitted.
In the few cases of recorded induced abortion identified in the registers, I asked providers to recall and discuss the details of the case. When providers mentioned recent cases of induced abortion that had involved the police, I searched in the registers for these cases to verify how they were recorded. For example, at the first hospital, a few midwives described a case of induced abortion in which the police had conducted an investigation in December 2010, a month before I began fieldwork at the hospital. When I couldn’t find the case in the 2010 register, midwives suggested looking in the delivery register since it was a ‘late’ abortion. Although I looked in the delivery register, I did not find the case, which suggests that it may have been completely omitted from the institutional documents that contribute to hospital annual reports, and in turn, district and regional reports to the central level of the Ministry of Health.

Although I have not included these data in the dissertation, I also reviewed data on family planning uptake following treatment. At the first hospital, I consulted a separate family planning register to identify PAC patients who had received contraception during subsequent visits as this information was omitted from the PAC register. I discussed the findings of this review extensively with hospital staff at the end of my fieldwork as family planning uptake following treatment was an area that many identified as inadequate.

At each hospital, my review of the abortion records lasted approximately two to three weeks. Although the head midwife at each hospital responded quickly to my request to review the registers, one of the main challenges in this exercise involved the physical state of the registers. Older registers were often missing pages, or torn pages were placed in different parts of the register. At the first hospital, prior to 2009, providers recorded cases treated by digital curettage and MVA in different registers. At the third hospital, physicians recorded MVA cases in a separate register which were then transferred to the main PAC register by the head midwife.
To ensure uniformity across these multiple records, I spent significant time cross checking these documents.

With the help of my research assistants, I recorded PAC and abortion data in a notebook. I then transferred these data to Excel in order to analyze and compare the data across all three facilities. All data from these hospitals presented in the dissertation derive from my review of hospital records.

*In-depth interviews*

I conducted in-depth interviews with PAC practitioners and key informants. Interviews were designed to explore participants’ perspectives, practices and experiences regarding PAC and abortion. They were also designed to cross-check information obtained during informal interviews during observation as well as observation of services. I started each interview by asking standard demographic questions. For PAC practitioners, I asked several questions about medical and, specifically, PAC training. I asked PAC practitioners general questions about the treatment of abortion complications, including the causes of complications, treatment practices and the management of MVA technology. I generally waited until the end of the interview to ask more sensitive questions about the abortion law and suspected cases of induced abortion. Interviews with key informants explored their general perceptions of abortion in Senegal as well as more specific practices and experiences with respect to abortion related to their profession.

I recorded the majority of interviews with PAC practitioners (56%) with a digital recorder and transcribed these interviews at a later date. I recorded the rest by hand during the interview and converted my field notes to transcripts a few hours after the interview. I used a semi-structured questionnaire to ensure uniformity in the data collected as well as to foster a more conversational style of exchange. For key informants, I generated a list of questions before
the interview that were specific to their area of expertise or professional experience. I conducted the interviews at a site selected by the participant, which for most participants was their place of work.

I conducted all interviews in French except for five. My research assistant conducted one interview in Wolof with a key informant at the third hospital and later translated the interview into French. I conducted four interviews in English with NGO personnel outside of Senegal using Skype. Interviews generally lasted between 40 and 60 minutes.

I developed three separate questionnaires for health providers, Ministry of Health officials and NGO personnel. Questionnaires for health providers focused extensively on daily practices regarding PAC treatment, technology and record keeping. Questionnaires for Ministry of Health and NGO personnel explored broader institutional practices related to the national PAC program. Although I developed the questionnaires for research ethics review boards at Columbia University and the Ministry of Health several months prior to beginning fieldwork, I revised these questionnaires continuously throughout the fieldwork period in response to observation and informal conversation in the field.

One of the main challenges in conducting interviews with health providers was scheduling. While physicians and head midwives were able to identify specific dates for interviews, midwives could only set aside time as it became available during their shift. Furthermore, although I conducted interviews with physicians and head midwives in private offices, interviews with midwives were generally conducted in the delivery room, which was often noisy and frenetic with activity. To avoid distracting midwives from ongoing patient care, I tried to conduct interviews during lulls in activity in the delivery room, or during free time following meals or prayer. I often had to suspend interviews for several minutes while the
midwife attended to a patient. On several occasions, other providers joined an interview that I was conducting with another provider. In these cases, I made sure to separate the responses from each contributor.

**Literature review**

I consulted literature on PAC and abortion from a variety of medical, public health, social science and media sources. While I conducted a considerable portion of this review during the preliminary research phase, I also obtained critical documents during the dissertation fieldwork. Much of the clinical and operations research documentation was available through CEFOREP’s excellent library. Examples of such documents include CEFOREP’s literature review on abortion in Senegal; epidemiological studies of abortion complications at hospitals; theses on abortion by medical students at the teaching hospital; reports on PAC operations research; reports on PAC conferences; and reports on reproductive health (ie, adolescent health, female genital circumcision, obstetric care). I was unable to gain access to the library at the demography institute at l’Université Cheikh Anta Diop. Fortunately, CEFOREP offered several demographic studies of abortion, contraception and fertility.

My research participants were another important source of information. DSR personnel supplied me with a copy of the Ministry’s norms and protocols regarding PAC; a draft of the situational analysis on unwanted pregnancy and unsafe abortion funded by Ipas; and Powerpoint presentations from MVA training seminars. My participant from Gynuity Health Projects sent me copies of relevant articles on Misoprostol as well as Powerpoint presentations from conferences on PAC sponsored by the organization. I received copies of the reproductive health law and the code of medical ethics from my key informants at the Association of Women Lawyers. I received copies of Powerpoint presentations on unsafe abortion from the Association
of Women Physicians. Ipas was also an important source of information. I obtained copies of reports from stakeholder meetings conducted in 2008 when Ipas first began working in Senegal. I also received from Ipas a report written by a consultant from the Association of Women Lawyers on the ‘state of affairs’ with respect to abortion. My participant at USAID provided me with a binder full of information on USAID’s global PAC program. Although the head of the global PAC program in Washington, DC declined to conduct a formal interview with me, she referred me to several important articles and reports detailing USAID’s stance and practices related to PAC. Many sources were available online, including Demographic and Health Surveys, clinical studies published in academic journals by faculty at l’Université Cheikh Anta Diop, and reports on PAC from NGOs such as EngenderHealth, Population Council and Management Sciences for Health.

Although I searched the archives at the School of Journalism as well as the general library at l’Université Cheikh Anta Diop, I found little material on abortion in Senegal. Instead, I scoured daily newspapers for articles on abortion. I asked my research assistants and my friends in Dakar to put aside newspaper with such articles.

Through the maternal mortality conference I attended in Dakar in December 2010, I networked with some Francophone scholars doing research in West Africa. Yannick Jaffré, a French medical anthropologist who has written extensively on obstetric care in West Africa, graciously sent me some of his books and directed to me to other important sources online.

While much of this information is presented in the background section, the literature review has also informed the three results chapters. I describe the triangulation of these documents in the analysis section.

*Legal archives*
I reviewed 42 cases of illegal abortion prosecuted by the regional tribunal of Dakar. Although I did not include a legal archival review in my dissertation proposal, I became interested in documenting the legal aspects of abortion once I began fieldwork. My key informants at the Association of Women Lawyers indicated that scholars could review case archives. I gained access to these cases by making a formal request to the archives specialist at the regional tribunal of Dakar. This dossier included a carefully worded letter in French (crafted by my excellent research assistant), a copy of the letter of authorization for my project from the Ministry of Health, and a copy of my research protocol.

Abortion cases were stored in the main archival room, in the basement floor of the building, with other infractions of the penal code, including theft, embezzlement, drunk driving, narcotics, pedophilia, and homosexuality. All cases were stored in boxes according to year, starting in the mid 1980s up till the present. The head archivist informed me that earlier cases were stored in an archival facility in another region. To identify abortion cases, my research assistant and I examined the contents of each box. We found 42 cases of abortion prosecuted between 1987 and 2010. These include cases in which women alone were prosecuted for procuring abortion as well as cases that also involved practitioners and accomplices.

Each abortion case included a summary of the court proceedings. I identified only 3 cases with more extensive documentation. These cases, which included transcripts of the police interview with the suspect as well as copies of medical documents, were stored with court clerks rather than in the archival room. Although I identified several other cases with additional documentation, I was unable to obtain these files as the clerk responsible for them had relocated to another region. Most of the cases in the archival room were much more circumscribed, detailing the case in just a few paragraphs. All cases stated the defendants’ name, age, and in
most cases, profession. They also detailed the court decision (acquittal or jail sentence and/or fines). One of the cases involved a physician at the third hospital site that provided medical testimony. Another case involved a DSR official (a midwife by profession) who was accused of complicity in illegal abortion. During my interview with this participant, I brought up the case and obtained her perspective. Although she denied involvement in this particular case of illegal abortion, she admitted referring women to physicians who offered safe procedures. During my preliminary research project in 2009, this participant admitted to using MVA to terminate pregnancy.

I made photocopies of each abortion case and logged case details in an Excel file. Even with the help of my research assistant, it took 2 months to review the contents of each box in the archival room. We generally started the review when the room opened at about 8 am and left at about 3 pm. Once we identified a case, we would each read the file, take notes and discuss.

5. Data analysis

My analysis draws on the extended case method (Burawoy 1998) in using ethnography to locate the politics and practice of post-abortion care in Senegal within the transnational context of population and reproductive health politics. I also drew on grounded theory (Corbin and Strauss 2008) to simultaneously collect and analyze data while in the field. Grounded theory, as its name implies, involves developing social theories directly from empirical data. Theorizing occurs at each step of the analysis process: coding, memoing and writing (Bernard and Ryan 2009). Like Burawoy, however, I recognize that I came to the field with pre-existing theoretical frameworks regarding medical professionalization, boundary work and reproductive technology in practice. The task of the researcher is not simply to confirm existing theory, but to
elaborate it. Context and situation must be the ‘points of departure’ for research. My theoretical findings did not ‘emerge’ fresh from the data. Rather, I adapted theory through constant dialogue with my participants and by triangulating data from interviews, observation and archival review.

The use of theoretical sampling means that data analysis and collection occur simultaneously. Data collection leads to analysis, which identifies categories and concepts, which in turn, drives additional data collection to further investigate these themes (Corbin and Strauss 2008). While my project followed these steps, they apply not only to interviews and observational data, but also to the other types of data collected continuously during my fieldwork, including medical records and archival review of medical, media, social science and legal sources. Such an approach is consistent with institutional ethnography, which examines how social relations are mediated through institutional texts and discourse (DeVault 2006; Smith 1993).

Although I had developed interview questionnaires prior to starting fieldwork, these instruments changed in response to the data collection process. After reading through the first few interviews, I altered questionnaires to investigate additional ideas and concepts generated by interviews and observation. Every few days, I read through my field notes and wrote memos to identify categories and themes in the data, as well as to elaborate my impression of how these related to each other. For each newly identified category or theme, I searched for negative cases (Bernard and Ryan 2009), or events in the data that challenged previously established categories or themes. I adjusted questionnaires in response to concepts that emerged from this process as well. Once my fieldwork started at the hospitals, I converted hospital data to Excel and created tables and graphs to compare data among the three hospitals. I incorporated these data into
analytical memos on field notes and interviews. I compiled a list of ‘suspicious’ cases at each hospital based on my review of PAC registers. I asked participants about these cases during interviews. I converted data from the legal archives into Excel and developed graphs and tables to explore relationships between types of defendants and case outcomes. I wrote memos about the legal cases and asked questions about these cases during interviews with Ministry and NGO personnel and key informants. Throughout this period of data collection and analysis, I regularly shared and discussed initial concepts with a fellow doctoral student via email and Skype. I memoed my thoughts after these discussions and altered questionnaires and observational agendas in response to new ideas that emerged through our discussion.

Towards the end of my hospital fieldwork, I had identified several major concepts regarding the management of abortion complications, including the treatment imperative discourse, providers’ uncertainty about the type of abortion, the process through which suspicion emerges, the default recording of abortion as spontaneous and providers’ discomfort with notifying the police when faced with a suspected illegal induced abortion. I shared these findings, along with recommendations for improving family planning uptake after PAC, with staff members at each hospital after the end of my fieldwork. I also disseminated these findings in a preliminary report for stakeholders as well as a paper I presented at the International Family Planning Conference in Dakar in November 2011. While I did not share these with stakeholders, I had also identified the following concepts through my initial analysis of interviews with Ministry of Health and NGO personnel: the transformational nature of PAC, tension between PAC policy and daily experiences of health providers, and tension between the Ministry and several international NGOs with respect to the relationship between PAC and unsafe abortion.
Upon my return to New York, I began targeted coding of these themes among PAC participants. I used Atlas.ti to code interviews with health providers, Ministry officials and NGO personnel. After coding each group of participants, I created grids that permitted a comparison of code-related chunks of text across profession and institutional affiliation. For health professionals, I compared codes between physicians, nurses and midwives. I also compared codes between the three hospitals. For Ministry officials, I compared codes between district, regional and national level staff. For NGO personnel, I compared codes between local and international organizations, and between pro-choice organizations and more neutral organizations. I used these grids to write analytical memos on each code. After completing the memos for each group of PAC practitioners, I read the memos and then elaborated further on how codes related to each other within and between groups of practitioners.

I also used memos to triangulate the multiple types of data collected during the project. For example, when writing about health providers’ practices with respect to recording abortion and notifying the police, I read through interviews with key informants from criminal justice authorities and included their perspectives in my reflections. In my memos on codes related to Ministry and NGO personnel, I incorporated data from my review of PAC and abortion literature. For example, when writing a memo on the code ‘abortion data,’ I listed various estimates of abortion yielded by epidemiological studies and operations research reports, and reflected on the various ways in which data were deployed and interpreted by multiple actors within the PAC program.

I drew on these memos (all of which were quite long, some up to 20 single-spaced pages) to assemble chapters on my findings. I wrote the chapter on medical providers first (Chapter 7), and then resumed coding of transcripts from Ministry and NGO personnel. After writing several
extensive memos on Ministry officials and NGO personnel, I decided I had enough material to write two more chapters of results and would therefore stop coding. Although in earlier dissertation outlines I indicated that one of the chapters would cover the material from the legal archives, I opted in the interests of time to limit the dissertation to the material I had analyzed thus far. However, some of the data from the legal archives that I addressed in analytical memos appear in Chapters 5 through 7.

The following three chapters of results are organized according to two distinct yet interrelated categories of analysis that emerged during the process of coding and memoing. The first category includes institutional boundary work around PAC practiced by the Ministry of Health and its NGO partners. The second category includes daily boundary work practiced by health providers in state health facilities. In Chapter 5, I discuss the strategies deployed by the Ministry and its partners to maintain control over PAC within the broader legal and political context of PAC. In Chapter 6, I explain tensions between institutional policies regarding MVA technology and the daily utilization and management of this instrument by health providers. In Chapter 7, I explore daily clinical, discursive and record-keeping strategies deployed by medical providers to avoid police investigation when faced with suspected cases of induced abortion.

A note on reflexivity and power is necessary here. The extended case method involves ‘locating everyday life in its extralocal and historical context (Burawoy 1998).’ However, power relations between researcher and participants are inevitable and shape the retrieval of data and in turn the nature of research findings. Two of Burawoy’s ‘power effects’ are particularly relevant to my study: domination and silencing. While I was primarily interested in the management of suspected illegal abortion in hospitals, I gained access to my research site under the pretext of ‘evaluating PAC services.’ The ability to prevaricate is a form of power that facilitated my
research project. My identity as an American from Columbia University, with longstanding personal and professional relationships with officials in the Ministry of Health, international NGO personnel and faculty members at the national university, is also implicated in relations of domination in the field. These intersecting forms of power were manifest on several occasions in the hospitals, when health providers scolded women who did not consent to be observed during MVA treatment. Although the health providers assured that I could observe these women in spite of their refusal, I excused myself from the treatment room in these cases. I endeavored to maintain a horizontal relationship with my research assistants, insisting that they refer to me as ‘tu’ rather than the more formal ‘vous.’ Yet, at the end of each day, we each returned to our respective worlds, until the next morning when we met again at the hospital. In addition to compensating the research assistants for their work, I always paid for transportation to new research sites. I frequently offered to pay for lunch at the hospital cafeteria. While my research assistants may have appreciated these gestures, they also reaffirmed the hierarchal nature of our relationship.

In a section below I outline a number of methodological limitations, including the omission from the study of women. Burawoy argues that such omissions constitute not only a study limitation, but also a form of silencing that shapes the collection of data and ultimately, the elaboration of theory. The compilation of data in this study is driven by voices at the ‘top’ of medical and public health hierarchies: government health officials, health care providers at urban hospitals, and NGO personnel. Women’s perspectives, including how they participate in or resist PAC, or how they contribute to the written record of PAC, are relayed primarily through the voices of health providers, and therefore incomplete.
6. Administrative Procedures

*Research Assistance*

At each of the hospital sites, I worked with a different research assistant to facilitate translation between Wolof and French during observation and interviews. While I would have preferred one assistant throughout the project, my budget could not support the cost of her room and board and transportation in regions requiring travel. Through my network of contacts, however, I was able to identify highly qualified individuals in each region of study. All three assistants were female. Two were graduate students in sociology, and one was a graduate student in public health. Prior to starting fieldwork at each hospital, I shared copies of the research protocol and interview questionnaires with the assistant and briefed her on the data collection techniques we would be using in the field. The assistants participated in direct observation of PAC and the review and documentation of PAC and abortion data at the three hospitals. They also participated in the conduct of interviews by clarifying or redirecting questions and translating between French and Wolof when necessary. At the third hospital, the assistant conducted an interview with a key informant in Wolof and translated it into French. This assistant also transcribed all interviews that were conducted in French and participated in archival research at the regional tribute of Dakar. She also continued to email me scanned copies of newspaper articles on illegal abortion after I returned to New York. She now works with one of my study participants at Marie Stopes International.

*Human subjects protection*

I obtained approval for this study from the research ethics committee of the Ministry of Health (*Comité National d’Ethique pour la Recherche en Santé*) and the Institutional Review Board of Columbia University. I spent the summer of 2010 in Senegal to prepare the research
protocol for the Ministry of Health. The ethics committee approved the project by October 2010 with the following revision: I was required to obtain written consent from participants, including women patients who would participate in the observation of PAC services. Revisions made to the protocol while in the field included the omission of a fourth observation site, and the identification of three research assistants. The application process was greatly facilitated by the West African Research Association (WARC) as well as my adviser at l’Université Cheikh Anta Diop, Professor Cheikh Ibrahima Niang.

When presenting the study to potential interviewees, I shared a copy of the Ministry’s letter of approval, assured them that their identity would remain confidential, and offered to describe the measures I would take to protect their privacy. Although my research assistants were already familiar with the principles of human subjects protection given their academic training in sociology and public health, I discussed the specific requirements of my protocol with them prior to starting fieldwork at the hospitals. The research assistants asked women patients in Wolof for their consent to be observed. They explained the study as well as the terms of consent on the form that required their signature. As part of the requirements of the Ministry’s research ethics board, I submitted a report of preliminary findings to this office as well as other stakeholders.

**Funding**

This study received support from the National Institute of Child Health and Human Development (NICHD), the Social Science Research Council and the Institute of African Studies at Columbia University. I also received a fellowship from the American Council of Learned Societies to complete the last year of dissertation writing.
7. Limitations

It is important to note several methodological limitations to this study. First, the study omits the perspectives of women. Women’s experiences and practices with respect to post-abortion care and abortion are relayed through interviews with individuals in positions of authority over women patients such as health providers, Ministry officials, NGO personnel, and police officers. Although the medical records offer a glimpse of women’s experiences with abortion, this account of the medical encounter is also embedded in hierarchical social relations between patients and providers. Given the illegality of abortion in Senegal, as well as the fact that women are considered a ‘vulnerable’ study population, I decided not to directly interview women patients seeking treatment at hospitals.

Second, the study under-represents the perspectives and practices of health providers at primary health facilities. For many women, the rural health clinic is the first point of entry to the health system. While these facilities are not authorized to treat abortion complications with MVA, they can treat women with digital curettage. It is therefore feasible that providers at these facilities might encounter cases of suspected induced abortion. Although I did not observe PAC services at health clinics, I interviewed five health providers at four health clinics.

Third, as the study was limited geographically to three facilities located on the western coast of the country, it may not fully account for the practices and experiences of health providers, Ministry officials and NGO personnel throughout the rest of the country. However, the hospitals included in the study are representative of other hospitals in at least one respect: support by international donors. Each hospital is representative of facilities in regions that receive technical and financial support for PAC from UNFPA, USAID and Ipas.
Finally, the archival review was limited to the justice tribunal of only one region of Senegal. The cases reviewed represent only those individuals accused of illegal abortion. They do not provide information about individuals involved in induced abortion who remain undetected by the criminal justice system. Nevertheless, the material in the archives offers important insight into the circumstances under which women, providers and other ‘accomplices’ are prosecuted for illegal abortion by the state that to date have been largely omitted from studies of abortion in African contexts.

8. Ethical and ethnographic challenges

I end this chapter on a reflective note by describing some of the challenges I experienced and the steps I took to address them during my year of fieldwork in Senegal. First, at each of the hospitals, I was required to wear a white coat, like other hospital staff, during observation. When I protested this requirement at the first hospital, the head gynecologist simply replied that I would never enter his maternity ward without a coat. He framed his policy in terms of preserving the comfort of women patients. If other people were barred from entering the delivery room without a white coat, why should I be any different? As a researcher, I was reluctant to wear anything that would identify me as a member of hospital staff. However, I complied with this requirement at this hospital (and the others) in order to gain access to the research site. In retrospect, donning the white coat turned out to be less problematic than I first imagined as I limited my interviews to health professionals.

The next challenge also arose at the first hospital. After about a week of observation, I asked the head gynecologist if I could attend the staff meetings he held on weekday mornings. The purpose of these meetings was to permit the midwives to summarize cases from the previous
shift, ask questions about pending cases and bring problematic cases to his attention. During the first meeting I attended, I took very few notes, preferring to observe the exchange between physicians and midwives. However, I noted that the head physician looked pointedly and repeatedly at me while he talked. Although he was addressing his remarks to his staff, I sensed that he was looking at me to gauge my reaction. Concerned that my presence might be fostering the desire to perform, I tried to sit behind people, or in chairs beyond his peripheral vision, in order to be less visible. Perhaps I imagined this performance effect. However, there were three particularly disconcerting occasions in which the physician, while looking pointedly at me, instructed the midwives to ‘re-interrogate’ a patient for whom the circumstances of her abortion were unclear. It is possible that the physician wished to demonstrate due diligence in investigating the type of abortion because of the presence of an outsider. I remained silent during the meeting in order to deflect attention, and followed up on these cases with the midwives after returning to the delivery room.

Third, I had to negotiate the consent protocol on observing women patients on several occasions. While most patients consented to being observed, a few refused at the second and third hospitals. On a few occasions, the attending midwives and physicians scolded the woman for not letting me observe, and insisted that I observe anyway. I politely declined, reluctant to benefit further from the hierarchy of social relations between patients and providers. There were several patients who arrived in shock and were therefore barely conscious. I chose not to observe these women. One woman asked my assistant and I to obtain consent from her husband, who was waiting outside the treatment room. I obtained his signature and noted the situation on the consent form.
Some of the most uncomfortable encounters took place during my interaction with police officers. When describing a case of illegal abortion he once investigated, a police officer provided a detailed explanation of how he required the suspect to squeeze her breasts in order to show that she was lactating (while she was in custody). He pointed to my breasts and those of my assistant while demonstrating the squeezing movements with his hands. Another police officer, during an interview with his commanding officer, interrupted the conversation to ask if I was tape recording the conversation. I replied that I had a tape recorder in my bag but it was not in use. I explained that I would have asked the officer’s permission prior to recording. He demanded that I remove the tape recorder from my bag, show him it was not active, and place it on the desk between the interviewee and I. This officer remained in the room during the interview, keeping a watchful eye on my assistant and I.

The most distressful part of fieldwork, however, was observing the treatment of women patients. For the most part, medical providers were caring and professional towards their patients. However, I observed several encounters in which patients were subjected to poor treatment. At the first hospital, for example, a midwife began to violently slap a patient in labor for not following her instructions to push. The other midwives had to intervene to stop her from hitting the patient. Also at this hospital, a physician berated a woman for arriving at the facility for a C-section without first scheduling an appointment. While she was lying on a bed in the delivery room, he threatened to make her walk up the stairs to the operating room. At the second hospital, a woman who arrived with bleeding following several weeks of amenorrhea was left alone (except for me) in the triage room while the midwife provided a quick consultation for the woman who ran the hospital cafeteria. The patient lost consciousness and slumped from the chair to the floor, bleeding profusely through her clothes. Having no clinical training, I never
directly participated in treatment unless requested by a provider to perform a small task (such as preparing a pile of cotton gauze prior to disinfection procedures). In this case, however, I ran to the delivery room and reported what had happened to the midwife, who sprang into action when she saw the woman on the floor.

At the third hospital, a woman in labor began to defecate while laying on an observation bed in the crowded delivery room. One of the attending physicians loudly announced that she was defecating, and yelled at her to go to the toilet. As she slowly made her way to the toilet, she brushed against another physician, who was sitting at a desk completing paperwork. He yelled angrily at her to stay away from him. This same physician, from time to time, would neglect to give women anesthesia injections prior to MVA treatment. When my assistant and I inquired after this omission, he brushed it off lightly, saying that he had simply forgotten. In these situations, rather than immediately jotting down my observations in the treatment room, I waited until I was alone or at home. As much as it troubled me to observe these interactions, and especially because of my status as a non-clinical, foreign researcher, I remained silent unless I could find a way to ask a non-threatening question about what I had just observed.

The most disheartening moment of my hospital fieldwork occurred at the second hospital. A young woman (still a teenager) arrived at the hospital in a weak, febrile state. She was 5 months pregnant, terribly thin and experiencing complications of very late term miscarriage. The midwives reported that she was very anemic. Although I did not inquire after the woman’s HIV status, the attending midwife told me that she had suspected HIV, but her test results had been negative during her prenatal care appointments. Several hours after she arrived, the woman expelled a live fetus, still wrapped in the placenta. Several days later, the woman was still at the hospital, being treated for an infection. About a week later, I observed her family members
removing her personal effects from the recovery room where she had been staying. The midwives informed me that the woman had died the day before. While I had observed several stillbirths at the first and second hospitals, this was the first maternal death. This young woman’s death was a sobering reminder of how reproduction can be an extremely risky undertaking for too many women in Senegal and other African contexts.
(5) Policing institutional boundaries: separating PAC from induced abortion

In this chapter, I explore how the Ministry of Health’s (MOH) Direction de la Santé de la Reproduction (DSR)/Division of Reproductive Health and its partners maintain professional authority over PAC, an intervention situated dangerously close to induced abortion in a country where this practice is forbidden. My findings suggest that the MOH negotiates authority through a series of discursive and technical boundary work practices that aim to separate PAC from induced abortion.

Using boundary work as an analytical lens brings to the forefront the fundamental tensions between the Ministry and some of its international partners, namely pro-choice NGOs like Marie Stopes International, Ipas and Gynuity Health Projects, in their interpretation of what I call the ‘philosophy’ of PAC: underlying beliefs and ideas with respect to what the intervention is supposed to do, who it is supposed to treat, and under what circumstances. These agencies differ significantly in their perceptions of what has been accomplished by PAC in Senegal as well as what remains to be done with respect to the public health problem of abortion. These ideological schisms between the MOH and its pro-choice partners arise from the location of the intervention itself at the intersection of global and local abortion politics. The PAC intervention in Senegal has been conceptualized, introduced, scaled up and evaluated by the MOH and its partners at this complex intersection of multiple and contradictory discourses and claims to expert knowledge that simultaneously support reproductive health and reject abortion as a legitimate form of medical practice. Consequently, PAC in Senegal is a deeply paradoxical health intervention that at once calls attention to the problem of unsafe induced abortion and renders it invisible through both discursive and technical practices.

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6 See Appendix 3 for a list of local and international agencies and institutions involved in post-abortion care in Senegal.
I offer four instances of discursive and technical boundary work to maintain authority over PAC. First, I discuss how the MOH and its partners have constructed PAC as an intervention that has transformed the treatment of abortion complications within the context of Senegal’s restrictive abortion law. Second, I explore how PAC, an intervention originally conceptualized by global reproductive health organizations to address complications of clandestine unsafe abortion, has been normalized into the sphere of maternal health care. Third, I illustrate how the MOH and its partners used operations research on PAC as a source of scientific legitimacy to navigate the political minefield raised by the very introduction of this intervention. Last, I show how the data yielded by operations research is deployed to maintain the boundary between PAC and induced abortion.

My analysis hinges on the triangulation of interviews, direct observation and archival review of institutional documents related to PAC. I interrogate the institutional account of the introduction and implementation of PAC described by scholarly articles and research reports with the lived experience of MOH and NGO personnel involved in PAC. This approach demonstrates how the framing of the public health problem of unsafe abortion and the ‘solution’ of PAC is a deeply political process with significant implications for professional authority, global and local institutional relationships and the distribution of resources such as training and technology. PAC is a profoundly contentious program precisely because it requires active management of the boundary between the treatment of abortion complications and the practice of induced abortion. At stake in this distinction is the legitimacy of induced abortion, a gender-specific intervention, within mainstream medicine. I also aim to show how professional boundary work in medicine and public health is a highly complex and contradictory process in
which professionals’ technical and discursive practices are closely intertwined with personal beliefs.

Strategy 1: PAC as transformation

The first instance of boundary work is the discursive construction of PAC as a transformative intervention. When MOH officials and NGO personnel talked about PAC, they described the intervention in transformative terms. First, they indicated that PAC training improved the very capacity of medical professionals to identify abortion complications. The following observation from an employee of the Centre Régional de Formation et Recherche sur la Santé de la Reproduction (CEFOREP)/Regional Center for Training and Research in Reproductive Health described the diagnosis of complications prior to the introduction of PAC:

Health personnel often weren’t instructed on the signs of abortion, so the emergency of the situation wasn’t well perceived. We saw, for example, and this was something really remarkable, with the studies we did with UNFPA, we realized that women could visit more than 3 health facilities, nearly 80 days after the first sign of abortion, they go to the facilities…and they didn’t see the obvious signs…so the pregnant woman, she’s bleeding, they’ll think you’re supposed to stop the bleeding, give her a product to stop the bleeding, when the abortion is already taking place, and there’s a reaction that’s giving rise to this hemorrhaging. So the woman continued to go to the facilities, where they continued to try to stop the bleeding, and there were no results, so they went to another facility, and another, until someone did a uterine evacuation (CEFOREP employee).

A MOH official supported this observation with the following remarks:

For a long time, women were wasting their time with the treatment of incomplete abortions. They went to the hospital, they came back. So PAC speeded up the treatment, and it’s very important (DSR official).

Second, the replacement of dilation and curettage (D&C) with Manual Vacuum Aspiration (MVA) made services faster, safer and more cost-effective for patients and hospitals. Unlike D&C, MVA did not require general anesthesia and treatment could be performed without hospitalization. The provision of family planning counseling and services during or after
treatment also offered an opportunity to increase contraceptive prevalence and prevent unwanted pregnancy and repeat abortion. A MOH official involved in the earliest stages of piloting PAC described this transformation in the structural organization of services as follows:

Perhaps you didn’t experience this, but I did. In 1987, I went to the maternity ward at Dantec Hospital. I was in a rural zone prior to this. I came to work on my specialty. When I arrived…we saw beds with pathological pregnancies\(^7\), that is, pregnancies with problems, three quarters of the beds in the ward were occupied by women who presented with incomplete abortions who were waiting for us to do their check-up, to insert the laminaria\(^8\)...These women, we gave them appointments, then they did the check up somewhere else, then they came back and we hospitalized them. These appointments, this back and forth, there were some who just never came back. When we introduced MVA, we saw that they didn’t need to do the check up, the problem was there, we were able to treat the problem. She won’t have to occupy the beds that should be occupied by patients with more serious conditions. So things really changed (DSR official).

Third, MOH officials explained that the PAC model equalized access to life-saving services for all women. While treatment services for abortion complications were previously limited to national and regional hospitals, PAC decentralized these services to district hospitals (health centers), a move which greatly increased access to services for women from rural zones:

You take the case of a health center that doesn’t have an operating block…if there were incomplete abortions that couldn’t be treated with digital curettage, they had to refer the patient. Take the case of a woman in Popenguine health center, where there is no operating block, who has an incomplete abortion. She has to go all the way to Mbour. Now we can treat her at Popenguine. At the health center in Saint-Louis, they don’t have to refer, or the health center at Dagana, they don’t have to refer her, they can treat her there instead of evacuating her to Ndioum. In Matam it’s the same thing, in Kanel, in Ranéròu, in Fatick, in Guinguino they no longer have to refer cases...These are significant advances...Personally I’m very satisfied with this strategy (DSR official).

In addition to these technical advances in the treatment of abortion complications, PAC also transformed the *bedside manner* of medical professionals towards women with complications of induced abortion. Under the PAC model, providers were trained to treat women irrespective of the origins of the abortion as well as the legal status of induced abortion.

\(^7\) Pathological pregnancy refers to a pregnancy at risk for complications.

\(^8\) Compressed, sterilized seaweed the size of a matchstick, used to dilate the cervix prior to surgical abortion.
(Corbett and Turner 2003; Greenslade et al. 1994). In other words, the PAC model transformed the treatment of abortion complications into a strictly medical affair. Providers could no longer threaten to withhold treatment from women suspected of induced abortion, or treat them any differently than women suffering complications of miscarriage. PAC emphasized the ethical obligation of the health professional to treat all patients irrespective of the circumstances under which the abortion took place. According to MOH officials and NGO personnel, PAC dramatically changed the manner in which women suspected of induced abortion were treated in public health facilities:

We treat them now, but before, it was like the police. Now, you have to treat the emergency before continuing with the interview to learn more. Even now, when there are doubts, you have to properly welcome the woman...I remember when I was a student, a woman who came and had an abortion, it wasn’t like that. She was cornered, she was seen as guilty. Now providers have received so much training on the relations of care...I think that’s why there’s a difference (Intrahealth employee).

They would tell you that they wouldn’t treat you. I witnessed this once (MOH regional official).

The health agent positioned himself more like, how would I say, a judge, an inquisitor, than a health agent. Women suspected of induced abortion were rejected. Cases of induced abortion were very poorly received...the problem was that, from a strictly human and ethical point of view, there was negligence because the duty of health personnel is not to assume the role of judge. They have to first treat people, treat them and then try to prevent the same event from happening, especially induced abortions, by offering contraceptive methods. So I think that the reception of women posed a problem. With the introduction of the PAC model, the first thing was to abolish this tendency, to say that you must first treat a patient, someone who is in need. You have the means to treat her, so first treat her and then help her prevent the same thing from happening if it’s an induced abortion. So the model introduced this novelty into the health facilities (CEFOREP employee).

Personnel from the pro-choice organizations (Marie Stopes International, Ipas, Gynuity) echoed this institutional discourse on the capacity of PAC to improve the ability of the health system to effectively treat complications of abortion. An MSI employee emphasized the
importance of PAC even in places where abortion is legal, where women need treatment for complications of spontaneous abortion or miscarriage.

All agencies involved in PAC agreed that this intervention improved the treatment of abortion complications. In addition to technological and organizational changes that improved service quality and accessibility, the ideology of PAC permitted providers to focus on the medical rather than the legal aspects of abortion complications. This shift from the legal to medical aspects of treatment reinforced the Ministry’s authority over a highly controversial intervention.

Strategy 2: the normalization of PAC into maternal health care

The second instance of boundary work to maintain authority over PAC was the normalization of this intervention into maternal health care. According to the MOH and most of its partners, one of the markers of PAC’s success was the successful integration of these services into the continuum of maternal health care within the health system. Institutional discourse on PAC revolved significantly around the importance of this intervention for reducing maternal mortality and morbidity. PAC services were perceived no differently than other services geared towards reducing maternal mortality such as prenatal care, emergency obstetric care and family planning to prevent unwanted pregnancy. PAC and the package of services it entailed had been discursively normalized into the sphere of services that fall under the umbrella of *Maternité Sans Risque* (Safe Motherhood):

The Ministry’s PAC strategy is favorable to the population. It solves the problem, it’s part of the larger strategy to reduce maternal mortality and morbidity by 2015, which is part of the MDGs. By stopping hemorrhage, which accounts for 25% of pregnancy related mortality in Senegal—if we can stop hemorrhage we can reduce maternal mortality (Intrahealth employee).
PAC is part of the programs that we integrated into everyday practice. To single out PAC, I think we’ve moved beyond that. You will never see in Senegal a document that talks about emergency obstetric care (EmOC) without talking about PAC. If you read the documents before, they said EmOC including PAC. That ‘including,’ it should be removed. PAC is included in the package of services for EmOC. (UNFPA employee)

We can say, globally, that the safe motherhood strategy will reduce maternal mortality. So here we rely on strategies like spacing births, second the surveillance of pregnancy or prenatal care. Third, safe delivery, or what we called skilled birth. Fourth is the policy of free caesarians which addresses this problem of sometimes obligatory cesarean. Fifth is post-natal care. And of course the treatment of abortion complications. So PAC is a component among the other five that I just mentioned. (MOH regional official).

The alignment of PAC with Safe Motherhood was a critical form of discursive boundary work for two reasons. First, by connecting PAC to Safe Motherhood, the Ministry ensured the political acceptability of an abortion-related health intervention in a context where abortion is illegal. In 1987, the Safe Motherhood Initiative in Nairobi, Kenya identified unsafe abortion as one of the top five causes of global maternal mortality. The global community has since prioritized maternal mortality in multiple platforms of action related to health and development, including ICPD, ICPD+ 10 and the Millennium Development Goals (Dixon-Mueller 1993; Freedman et al. 2005; Hartmann 1995a; Kulczycki 1999). Senegal committed to each of these global treaties and the Ministry considers maternal mortality reduction to be a top public health priority (GREFELS 2003).

Second, the discursive alignment of PAC with Safe Motherhood implicitly coded PAC as a service not for all women, but specifically for mothers. Sociologist Susanna Rance has explained how the gendered coding of maternal mortality reduction discourse reinforces normative expectations of sexuality and childbearing within the context of marriage and family by prioritizing the health of married mothers rather than all women (Rance 1997). Although she applauds the efforts by the global health community to prioritize this public health problem, she
argues that more inclusive terminology like ‘reproductive mortality’ would better address all women’s health concerns irrespective of marital and childbearing status.

The gendered coding of Safe Motherhood in PAC discourse obscures induced abortions by characterizing PAC as an intervention for the treatment of miscarriage. If PAC is for mothers, then the abortion complications in need of treatment are complications of spontaneous rather than induced abortion. Many Ministry officials and NGO personnel indicated that the majority of PAC cases treated by health professionals in Senegalese hospitals were cases of spontaneous abortion:

PAC is a very important package in this strategy because we know that in Senegal they account for about 4% of maternal death. So maybe one could say that number is small, but I think it’s as they say, it’s the tip of the iceberg, because we know that a lot of abortions happen in the community…Don’t forget also that there are lots of factors that cause these abortions, like malnutrition in adolescents, it’s obvious that malaria causes a lot of abortion. But even if people say that there is a lot of unsafe abortion in Senegal, I think that spontaneous abortion takes the cake. There are many factors that can cause it and that we see in our country (DSR official).

It’s mostly spontaneous abortion. There are induced clandestine abortions…but at the level of the public system, it’s spontaneous abortions that account for most cases (WHO employee).

Characterizing abortion as predominantly spontaneous was a powerful discursive tool. In contrast to induced abortion, spontaneous abortion is an event that is beyond the woman’s control and therefore irrelevant in the eyes of the law. Social scientists have suggested that part of the stigma of induced abortion is related to its perceived transgression of ‘essential’ qualities of womanhood, such as the inevitability of motherhood and the linkages between female sexuality and procreation (Kumar, Hessini and Mitchell 2009; Luker 1985; Petchesky 1990). Within this framework, spontaneous abortion is less threatening than induced abortion because it does not violate the assumption of inevitable motherhood. It is rather an unfortunate event
experienced by a woman who otherwise wanted to be a mother. Such events therefore pose little moral or legal danger for the medical professionals who treat complications of abortion.

By constructing PAC as an intervention for treating complications of spontaneous abortion, the Ministry affirms the legitimacy of this intervention within the context of the law. This boundary work further affirms the legitimacy of PAC within medical and public health practice, in which induced abortion is widely considered unacceptable or incompatible with the religious beliefs of many health providers (discussed in Chapter 7). Keeping induced abortion out of PAC, therefore, is an essential strategy for normalizing PAC within medical and public health practice.

Among the pro-choice organizations, Ipas personnel disagreed most strongly with the normalization of PAC within the health system. Even though Ipas was one of the earliest promoters of PAC in the late 1980s and early 1990s and continues to support PAC globally (Dixon-Mueller 1993), the organization now describes its core mission as expanding access to Comprehensive Abortion Care (CAC), which includes safe abortion where legal, and post-abortion care (Ipas 2013). Ipas personnel suggested that the normalization of PAC rather than the provision of safe abortion care constituted poor medical practice:

We know how to provide safe abortion. The technology is there, the knowledge is there. It is really immoral for us to oppose services for women when we know how to provide these services and improve their lives. So I’ve stopped talking PAC. I have removed it from my dictionary. I talk CAC and like I said, the spectrum includes PAC (Ipas employee).

It’s become routine and it shouldn’t be routine. It’s an emergency (Ipas employee).

So that is why we keep saying that we need to do more. PAC has its place. Its place in medicine really is the worst place where you’re waiting for complications to happen and then you intervene. That is not good medical practice. It’s like waiting for someone to get measles before you intervene instead of providing immunization and things like that (Ipas employee).
In spite of this disagreement with the normalization of PAC, pro-choice personnel acknowledged that given the continuing hostility to abortion in the current global reproductive health funding climate, PAC was unlikely to disappear anytime soon:

Respondent: The other thing is a lot of the potential partners actually receive funds from USAID. And so, as you know USAID has strict guidelines on what work can be done and what work cannot be done. And so it was difficult when you have a majority of the players that are working in reproductive health receive funds from USAID trying to collaborate with another organization that doesn’t receive funds from USAID. I think a lot of it was…not fear based, but they were protecting their programs and the work that they do. Of course, with the majority of the funds coming from USAID they had to be mindful of that (Gynuity employee).

SS: Will there always be a need for PAC?

Respondent: Uh, that’s an interesting question. For the foreseeable future I would say yes. For the reasons we discussed, I don’t think the funding environment is going to change. I think there’s still a lot of hesitation on the part of our partners and our donors in this area. I think governments are cautious. So yeah, I think there’s probably going to continue to be a need for this concept (Ipas employee).

The Ministry of Health and its pro-choice partners disagreed sharply over the normalization of PAC into maternal health care. For pro-choice NGOs, the normalization of PAC into regular health care represented the failure of the health system to provide safe, legal abortion. For the Ministry and the rest of its partners, however, the routinization of PAC softened the threat of induced abortion in a context hostile to abortion with the gendered coding of the Safe Motherhood initiative.

It is important to note that this practice emerged not only in response to local debates on abortion but also global abortion politics. Given that USAID is one of the main donors of population assistance funding, the Ministry must negotiate American funding policies that prohibit aid for any activity related to induced abortion besides PAC (Curtis 2007). To maintain such an important source of funding, it is crucial to keep the focus of PAC on spontaneous abortion. Normalizing PAC can thus be understood as a form of professional boundary work,
practiced by the Ministry of Health at the intersection of local and global politics. By normalizing PAC into maternal health care, the Ministry responded to an urgent public health problem while remaining accountable to its primary donor as well as the expectations of its local audience in which female sexuality which is strongly linked to marriage and motherhood (Foley 2007).

Strategy 3: operations research as scientific legitimacy

The third boundary work strategy is the deployment of operations research to legitimate the introduction of a politically threatening intervention. I find that there is a significant difference in the accounts of the introduction of PAC between institutional reports and the personal narratives offered by those who participated in this process. Institutional accounts of PAC do not suggest anything out of the ordinary took place during implementation. In fact, the introduction and scale-up of PAC was much more complex and controversial than suggested by these institutional accounts. I argue that the evidence-based manner in which PAC was introduced and scaled up in Senegal represents another form of professional boundary work by the Ministry to maintain authority over abortion while not appearing to ‘promote abortion.’ Operations research offered a scientifically grounded justification to introduce abortion-related services. While the PAC paper trail, captured in reports and articles published by the Ministry and local and international NGOs, suggests that PAC was introduced according to a public health rationale, the personal accounts of this process, narrated by Ministry and NGO personnel who were involved, indicate that equally important to this rationale was the discursive and technical separation between PAC and induced abortion. Taken together, both accounts suggest that the Ministry drew on research to at once justify the introduction of this intervention and ensure that PAC would not facilitate induced abortion within the Senegalese health system.
Reading the various reports and articles associated with the national PAC program, one might conclude that PAC was introduced and implemented in a fairly linear, evidence-based fashion. Starting in the 1980s, epidemiological research conducted in hospitals on abortion complications suggested the need to address this health problem (CEFOREP 1998b). Patients presenting with complications of suspected induced abortion tended to be young, unmarried, not currently using contraception and had limited formal schooling (Diadhiou 1995; Faye 1993; Goyaux et al. 2001). Studies also suggested that women in rural zones lacked access to treatment that was primarily concentrated in large hospitals in urban areas (PopCouncil 2004).

Armed with an evidence-based rationale for PAC, the Ministry of Health, in collaboration with local and international partners, launched a period of rigorous operations research to test the feasibility of introducing PAC to the national health system. Findings showed that PAC reduced the length of hospitalization and related costs for patients; MVA technology was safer and less costly than D&C; midwives were comfortable using this technology; and contraceptive uptake increased among PAC patients following treatment (CEFOREP 1998a; CEFOREP 2003; EngenderHealth 2003). Satisfied with the results, the Ministry proceeded to introduce the model to lower levels of the health system. This process continued until PAC was extended to the lowest levels of the health system, the health post or clinic, in the mid-2000s (Diadhiou 2008; Thiam, Suh and Moreira 2006). In the late 2000s, the Ministry partnered with other international agencies to test the feasibility of using Misoprostol for treating complications of incomplete abortion as well as a community-based PAC model.

Operations research on PAC in the early 1990s in Latin America and other parts of Africa showed that this intervention could be introduced and practiced effectively at various levels of the health system in contexts with restrictive abortion laws (Billings and Benson 2005;
Huntington 1999). If the effectiveness of PAC was already documented, what explains the Ministry’s rigorous execution of operations research to test the feasibility of PAC at each level of the health system? I find that the Ministry and its partners sought not just evidence of the feasibility of PAC, but also to show that the health system could offer PAC services that were limited to treating complications of abortion. Ministry and NGO officials indicated that political resistance to PAC, among other Ministry officials and parliamentarians, revolved primarily around MVA technology that would be used in PAC. As MVA can be used to induce abortion in addition to treating complications of abortion, the Ministry and its partners were compelled to prove that PAC services involving MVA could be offered at multiple levels of the health system without simultaneously opening the door to illegal induced abortion:

We used operations research as a doorway to advocacy because if you recall, at the beginning people confused PAC and the MVA syringe. That’s why we took the route of operations research. We started with a pilot project, and for the extension we also did operations research. That facilitated our advocacy. You see the elements of operations research, with respect to the length of hospitalization for patients, with respect to the cost, the satisfaction of clients and personnel. When presented with all this information, the decision makers could not make any objections, there were no blockages. I remember, there was a big decision maker who said that as long as he occupied his position there would not be any PAC, because as far as he was concerned, PAC was the same thing as induced abortion. Because of the fact that with MVA, you don’t have to go to the operating theater, you can just do it in a room. Everyone said careful! When we put the syringes there, they will do induced abortions. We had to show them that that fear was unfounded because we’re looking at abortions that have already happened (DSR official).

I have to say that at the beginning there was fierce resistance. Really, I have to say that it was fierce, from health personnel but particularly from certain authorities…Even before the first study there was advocacy to get PAC approved, and because of this the professors said, well, since we’re at the University, we’re going to do research. The government cannot stop us, so we’ll go through the University. That’s how it happened. And when we did the study, at first, even the concept of incomplete abortion posed enormous problems because legal experts said it’s an incomplete abortion therefore you are terminating the abortion (laughter). Others said that if you introduce the syringe, it’s finished, everyone will do abortions. These were the main problems we had (CEFOREP employee).
At the beginning, there was a lot of suspicion. There are still some health providers, even now, who are convinced that PAC promotes induced abortion. There were really a lot of problems involved with introducing PAC because people thought PAC was services for inducing abortion. There was a pilot committee assembled with all the partners, and Population Council took the lead to do the operations research. But first, the University, that is the teaching hospital, did the first operations research project at Dantec Hospital, Principal Hospital and the health center Roi Baudouin. They took these facilities, trained the midwives in PAC and they saw concrete results in the treatment of abortion cases. And they didn’t even want to hear talk of the term PAC. So they used a different term just to make sure that it was accepted (WHO employee).

The Ministry used research to convince skeptics that rather than facilitating clandestine induced abortion in hospitals, PAC would make treatment of abortion complications safer and more cost-effective. By collaborating with local experts in epidemiological research such as the network of teaching hospitals and CEFOREP, the Ministry added further scientific credibility to this approach (Diadhiou 2008). Nevertheless, this undertaking was so sensitive that the Ministry remained vigilant in its separation of PAC from induced abortion. As noted above by a WHO employee, people were reluctant to even use the term PAC because of its reference to abortion. This caution is illustrated in the title of the main publication from the first round of operations research, in which the term PAC never appears but is rather referred to as emergency obstetric care and family planning: *Introduction des soins obstétricaux d’urgence et de la planification familiale pour les patientes présentant des complications liées à un avortement incomplet/
Introduction of emergency obstetric care and family planning for patients presenting with complications of incomplete abortion.*

Although the Ministry deployed scientific research as a boundary strategy to maintain authority over abortion, the actual *conduct* of this research was not always scientific. Institutional accounts of PAC do not specify how the facilities were selected as operations research sites. According to an NGO technician involved in PAC from the earliest stages, study sites were selected not randomly, but according to the *trustworthiness* of the head gynecologists.
Only those hospitals where the Ministry and its partners could be certain that the head gynecologist would ensure strict surveillance of MVA technology could be used as study sites:

It became a personal affair. And that’s what determined the decentralization or the scaling up in Senegal, because we didn’t do it systematically. We chose facilities that were headed by reliable people, reliable gynecologists. We said we know someone in Diourbel who is trustworthy, we know someone trustworthy in Kaolack. That means someone who is not known as someone who does induced abortion, someone who is responsible. We chose Kaolack, and St. Louis. We took Sokone, the first health center, so Sokone, Diourbel, there was also Thies. We took these structures because we trusted these people. There were even facilities in Dakar that we skipped because we didn’t trust the people there. If you leave them with the material, who knows what could happen (laughter). The choice was made based on the people who worked in those facilities, or who headed the facilities, and it continued like that. So it was political sentiment that guided the process. But it should be said that this process was done very prudently at the beginning. Now people are much more comfortable and things have been clarified in my opinion (CEFOREP employee).

Furthermore, only those personnel deemed trustworthy were authorized to practice MVA in hospitals. While midwives are now permitted to use MVA, during the early stages of the program there were concerns about the dangers of abuse by this cadre of paramedical providers. Nurses, the primary medical personnel in rural health clinics, were also deemed less trustworthy than physicians in the appropriate utilization of MVA. MVA authorization revolved around the perceived trustworthiness rather than the technical capacity of the individuals responsible for the maternity unit in the hospital. Individual trustworthiness often intersected with common stereotypes of the character of medical and paramedical professions that fell along a gendered spectrum of trustworthiness, with male physicians being the most trustworthy, followed by female midwives, and male nurses in infrequently supervised health clinics least trustworthy of all:

Now, the philosophy of PAC presents problems because of the easy access to abortion. That’s a problem in a context where induced abortion is not authorized. It would be an open door to do induced abortion in this country. So we had to secure it and put in the hands of trustworthy people. We said that we will put it the hands of trustworthy men, men that we know will not be potential abortionists. That was the danger with
implementing MVA, because there was just one person who could do everything, and they could do it anywhere. All you needed was a gynecological table and antiseptic products, Xylocaine (local anesthetic), and the syringe to do something else besides PAC. So in the beginning we had to put it in facilities where there were trustworthy men (MOH District official).

The problem was the management of the MVA kit, the MVA syringe. The Director of Health at the Ministry at the time did not trust nurses. He trusted midwives but not nurses, because the line between using the syringe to treat a difficult abortion and doing an induced abortion is thin. He didn’t want the material to be used for something other than PAC. We did not train all the nurses, it wasn’t possible. We had nurses that had their baccalaureate and some who had a university degree. We said, well, can’t we do a morality survey on the person before giving him the equipment? We discussed that, but I admit that for midwives, we didn’t have the same concerns. Sometimes we came across midwives that were just as dubious as…who had done abortions and people knew, I know some of them (UNFPA employee).

I remember that when we were introducing PAC, it was a big problem. I remember the first people who started to roll out the program were hand-picked. At first, people said why give MVA to midwives (Intrahealth/Population Council employee)?

Scholars have shown that while the meaning of abortion stigma may vary across time and place, the practice of abortion may be deeply discrediting for medical professionals who provide this service. Where abortion is equated with murder, it falls beyond the boundaries of acceptable medical providers. The expression of abortion disapproval within the medical establishment ranges from blocked career advancement opportunities to outright hostility and harassment both inside and outside the workplace (Joffe 1996; Kumar, Hessini and Mitchell 2009; Mollmann 2006; Pelletreau 2003; Rance 2005; Randall 2011). The Ministry’s discursive and material efforts to separate induced abortion from PAC offer insight into the discrediting nature of this practice within public health and medical practice in Senegal. Promoting PAC came dangerously close to promoting induced abortion:

Maybe we put a fly in the ointment with the approach. Now it’s well accepted, but during the 2000s that was the danger. We exposed ourselves to critics, to people who said we are there to promote induced abortion (MOH District official).

In a context where induced abortion is highly taboo, rigorous research, coupled with
standards of site and personnel selection that were less scientifically valid than described in reports, was the Ministry’s solution to addressing a public health problem in a way that was sensitive to the social context of abortion. Drawing on research conducted by prestigious, scientific institutions, the Ministry armed itself against critiques that it was underhandedly introducing induced abortion to the health system.

Operations research on PAC offered another important advantage to the Ministry: scientific legitimacy. The Ministry was involved with research supported by international NGOs like the Population Council, JHPIEGO, EngenderHealth, Intrahealth, bilateral donors like USAID, and UN agencies like UNFPA and the WHO. These partnerships conferred upon the Ministry and its local partners additional legitimacy as agencies engaged in science as well as members of a regional and global initiative on PAC. Publications on PAC frequently refer to Senegal as a ‘pioneer’ in the Francophone region of West Africa because of the manner in which this intervention was piloted and subsequently scaled up (Diadhiou 2008; Dieng 2008; Thiam, Suh and Moreira 2006). Ministry and NGO personnel involved in the early stages of PAC also spoke with considerable pride of Senegal’s role as a ‘leader’ or ‘pioneer’ in the region. PAC research served as currency with which the Ministry and its partners negotiated their credibility and prestige as scientists and public health professionals in an environment that was skeptical about this intervention.

Although most large-scale operations research on PAC terminated by the mid-2000s, the Ministry continues to prioritize research related to PAC. A Gynuity Health Projects employee described the challenges encountered in negotiating the introduction of Misoprostol (Miso) as an alternative chemical technology for treating abortion complications. Similar to MVA, Misoprostol may be used both to induce abortion and treat incomplete abortion. Although the
efficacy of Misoprostol had been demonstrated elsewhere in clinical trials, the Ministry wanted to conduct operations research to test the feasibility of offering this technology specifically in Senegal. When I asked the Gynuity Health Projects employee if the first round of research had allayed concerns about Misoprostol being used for illegal abortion, she offered the following response:

No, there were still concerns, and it’s always difficult to know if the concerns are personal concerns or they’re more like the politically correct concerns that are being voiced. But there were definitely concerns expressed and people wanting Miso to be introduced in controlled settings and so that was one of the reasons why they deemed necessary another research project. So that it can be introduced and we can demonstrate that. So this next phase is less of a test research, we’re not testing anything, the efficacy has already been established, we know it can be used. We know who can use it, we know it’s effective, so this is basically exploring the programmatic aspects of introducing Misoprostol. And so this is what they wanted to look at how Miso can be introduced in those settings in a safe and effective way (Gynuity employee).

This employee’s experience suggested that the introduction of Misoprostol as a technology for PAC may follow a similar trajectory to MVA. Similar to the earlier introduction of MVA, tension existed between local and external technical expertise regarding the feasibility of Misoprostol. Gynuity Health Projects has demonstrated that this technology can be used safely and effectively in multiple African contexts as an alternative to MVA to treat complications of abortion (Dao et al. 2007; Diop et al. 2009; Taylor et al. 2011). In 2011, the World Health Organization affirmed the safety of Misoprosol by including it in its 17th list of Essential Medicines (WHO 2011b). Nevertheless, the Ministry and its partners have insisted that these qualities must be demonstrated in the Senegalese context before it is authorized more generally. Operations research is required to ensure that this technology can be used in the health system to treat abortion complications rather than terminate pregnancy.

There is a significant difference between the institutional accounts of the introduction of PAC and the narratives provided by Ministry and NGO personnel who actually participated in
this process. Institutional accounts, in the form of published articles and reports by NGOs, suggest that in response to a strong body of epidemiological evidence, PAC was introduced and scaled up in a rational, linear and uncontested fashion. In contrast, Ministry and NGO personnel show that the very act of introducing PAC required a delicate set of negotiations to counter critiques that PAC was equivalent to induced abortion. Through its participation in a regional and global initiative of PAC research, the Ministry staked claims to legitimacy as a neutral, scientific agency with the necessary expertise to respond to abortion as a public health problem, in spite of its involvement with the highly discrediting practice of abortion.

Strategy 4: deploying data to separate PAC from induced abortion

We started gathering data on it (postabortion care). We created a category. When you create a category then you can...we reified this thing that was happening into a classification, into a thing, into a category, and we made it something that people can count. And so all of a sudden you have data...we look at data ourselves that says, the number of PAC cases is going down or up, or not changing, what does that mean? Why are there so many PAC cases in this hospital, what’s going on here, why are women coming, are women unaware that they should come early? It just raises all these questions, and that’s only because we’re actually capturing this data. So yeah, I think it...has allowed organizations that get USAID funding to remain active in abortion, otherwise abortion would have been completely dismissed and taken out of the reproductive health continuum. It’s not complete, obviously, but it’s there (Ipas employee).

Shared by an Ipas employee, this quote suggests that PAC created a singular category (women with abortion complications) around which local and global public health professionals could mobilize to leverage resources for abortion care. More broadly, it speaks to how the practices related to collecting and interpreting abortion data offer important insight into the meaning of abortion and how in turn such meaning shapes abortion care.

In this section, I discuss the fourth boundary work strategy, which involves the deployment of data to separate PAC from induced abortion. I trace how PAC data have
engendered an entire field of public health practice involving transnational collaborations between the Ministry, NGOs and donors. I examine the collection and interpretation of PAC data from the perspectives of the various actors and agencies involved in Senegal’s PAC program. I argue that multiple actionable categories have emerged from PAC that have been used to leverage continuing donor support for the intervention. At the same time, PAC data represent somewhat of an unstable category due to the particular transnational policy configuration in place that precludes research and services related to induced abortion. PAC data can only measure progress related to a hospital-based intervention. They fail to capture the scope or causes of unsafe abortion or measure the impact of PAC on abortion related mortality or morbidity. Yet, it is this very omission of data on induced abortion that has strengthened the Ministry’s philosophy regarding PAC as an intervention for spontaneous abortion. From the level of the health facility to the national level of the DSR, techniques related to collecting and interpreting PAC data reinforce the notion that most abortions treated in public facilities are spontaneous. In turn, this reinforces the notion that induced abortion is rare and socially deviant.

In many respects, Senegal does not differ from other sub-Saharan countries with restrictive abortion laws when it comes to the dearth of epidemiological data on induced abortion. When induced abortion is restricted, the practice is driven outside of the formal health system and the information systems in place to measure such events. Abortion data from hospitals represent only a fraction of women who have self-induced abortion or procured the abortion from someone else (Barreto et al. 1992; WHO 2011a).

Existing data on induced abortion in Senegal have been obtained primarily from large, urban hospitals and varies significantly. A 1992 study of abortion at the national teaching hospital estimated that induced abortion accounted for up to 40% of hospitalized abortion
A study conducted at four large hospitals in the capital city between 1993 and 1994 estimated that up to a quarter of women hospitalized for abortion had had an induced abortion (Diadhiou 1995). A more recent study, conducted during the early 2000s at the national teaching hospital, estimated that only 5% of abortion patients had had an induced abortion (Cissé, Faye and Moreau 2007).

Research on maternal death has elicited limited data on abortion. Maternal death reviews have found that hemorrhage is the leading cause of maternal death in Senegal while abortion accounts for very little mortality (Dumont et al. 2006; Kodio et al. 2002). However, abortion is often misclassified as hemorrhage or sepsis (Barreto et al. 1992; Khan et al. 2006). Although Demographic and Health Surveys conducted in Senegal in 2010 and 2005 have yielded maternal mortality ratios, they do not distinguish between various causes of maternal mortality (ANSD 2012; Ndiaye 2006).

Drawing on these existing studies, Ministry and NGO personnel did not differentiate between induced and spontaneous abortion when discussing the contribution of abortion to maternal mortality. Several individuals stated that hemorrhage accounted for 25% of maternal mortality. Others indicated that abortion complications accounted for 4, 5, 13, even 18% of maternal death. Some said that abortion was the second, or third, cause of maternal death. The following observation from a CEFORREP employee illustrates the challenges related to estimating the contribution of induced abortion to maternal mortality. It also provides insight into how data, and the omission of data on induced abortion, add weight to the notion that the majority of PAC cases treated in hospitals are spontaneous abortions:

SS: What is your perception of induced abortion in Senegal? Do you think it’s an important factor in maternal mortality and morbidity?
Respondent: Quite frankly, I can’t say because the research I’ve done and the research that I’ve read and consulted doesn’t really show that there’s a high rate of clandestine abortion. There are no studies that show that there’s a high rate and there are no studies that show that the burden of abortion...Even if we say it’s because of the methodology, I haven’t seen any studies that show the contribution of clandestine abortion to maternal mortality and morbidity. There were some cases in hospitals. People say 18%...that’s the proportion of deaths due to abortion and those are hospital data (CEFOREP employee).

If earlier research yielded limited data on the scope of induced abortion, what data have actually emerged from the PAC program? Like any public health intervention, PAC has a series of indicators designed to monitor provider competence, service delivery and quality of care. Examples of such indicators include the type of treatment administered; the proportion of patients treated who received a family planning method following treatment; the number of facilities with adequate infrastructure and supplies for PAC; the number of medical providers trained in PAC; and the number of facilities with providers trained in PAC.

One of the most important measures of progress has been the increasing uptake of MVA as a method of uterine evacuation. By the end of the first pilot project in three hospitals in Dakar, MVA utilization outpaced both digital curettage and D&C by half (CEFOREP 1998a). By the end of the third project, in 6 health centers, nearly 60% of PAC cases were treated with MVA (EngenderHealth 2003). During the Ministry’s collaboration with MSH between 2003 and 2006, the number of patients treated with MVA in 23 health centers doubled from 27% in 2003 to 53% in 2005 (Thiam, Suh and Moreira 2006).

My own fieldwork, conducted at three facilities several years after these projects came to an end, suggests that MVA continues to be the dominant method of uterine evacuation. Figure 2 indicates that in the three study hospitals between 2009 and 2010, nearly half of all PAC cases were treated with MVA and that D&C was used (only at one hospital) in less than 10% of cases. Considering that D&C used to be the primary method of uterine evacuation throughout the
country, this shift is quite significant.

Figure 2: Uterine evacuation at 3 hospitals, 2009-2010

The fourth operations research project, conducted in five regions of the country between 2003 to 2006 in collaboration with MSH, indicated important gains in service delivery, provider training and infrastructure. During this time, the Ministry trained 523 health providers, the majority of which (87%) were paramedical providers such as midwives and nurses. Among 23 health centers where PAC was introduced, the percentage of facilities with adequate infrastructure increased from 29% in 2003 to 95% in 2006. Between 2003 and 2006, the percentage of health centers with at least one provider trained in PAC increased from 39% to 100%. Among the 23 health centers, the number of women treated more than doubled from 1178 in 2003 to 2530 in 2005 (Thiam, Suh and Moreira 2006).

I refer to these data as actionable because they presented to the Ministry and its partners opportunities to leverage resources for additional operations research and programming regarding PAC. These data offered powerful evidence not only that PAC was feasible in the
Senegalese setting, but also that the program merited further support in training medical providers, distributing data collection tools, and procuring uterine evacuation technology.

The notion that data elicits further support can be seen by the continued support of the PAC program since its introduction in 1997. During each phase of operations research, the Ministry partnered with an international NGO or donor. The first project was conducted between 1997 and 1998 in collaboration with JHPIEGO and Population Council. The second project, conducted in 1999, was primarily supported by UNFPA. Between 2000 and 2002, the third project was supported by EngenderHealth. Intrahealth implemented the fourth project initiated in 2002. PAC had become a transnational field of practice in Senegal that mobilized technical and financial partnerships between the Ministry and various NGOs and donors.


In 2003, USAID launched a five-year PAC programming plan in response to a global evaluation of its PAC activities around the world. USAID selected seven countries, including Bolivia, Cambodia, Haiti, Kenya, Nepal, Senegal and Tanzania, to receive funding to support the expansion and institutionalization of PAC (Curtis 2007). Management Sciences for Health,
USAID’s contracting agency in Senegal during this time, implemented this project between 2003 and 2006.

Currently, two of USAID’s contracting agencies, Intrahealth and Child Fund, support PAC activities in their regions of intervention. UNFPA continues to support PAC in its regions of intervention through training and the donation of MVA syringes. Ipas supported MVA training for midwives in two regions of the country in the late 2000s. Ipas’s role as the supplier of MVA syringes is discussed in Chapter 6. Gynuity Health Projects is currently supporting operations research on Misoprostol for PAC.

The continued support for PAC is remarkable given that the available data elicited by PAC has not provided any evidence that the current approach has increased women’s access to PAC or contributed to a reduction in abortion related mortality and morbidity. To understand this problem, we must examine the type of abortion data the Ministry collects from PAC facilities, as well as the tools in which these data are inscribed. In the mid-2000s, the Ministry issued PAC-specific registers to facilities that provide PAC. These registers collect data on a number of indicators, including type of abortion (spontaneous or induced), method of uterine evacuation, and family planning method after treatment. Yet, at the national level, the DSR does not retrieve data on the type of abortion treated from health facilities. Only data on the total number of abortions treated, the type of evacuation method, and the proportion of patients treated who received a family planning method are collected.

Ministry officials justified the omission of data on the type of abortion by indicating that their primary concern was the number of abortions being treated. Several spoke of the challenges involved in collecting information on the type of abortion due to the restrictions of the abortion law:
We are not interested in the type of abortion, because we are not here to crack down on women as I told you. We do not differentiate (between spontaneous and induced abortion) in the collection of data. We look at abortions that took place within the first three months that benefited from an aspiration...Even if we tried to differentiate between the two, there wouldn’t be any data. Why? People won’t admit that they’ve had an abortion because it’s forbidden by the law. So we work within the prescriptive framework and we restrict the data to the number of aspirations to see how often MVA was used. We look at the number of abortions that took place in the first trimester and also the total number of abortions (DSR official).

SS: In terms of data collection, does the Ministry differentiate between induced and spontaneous abortion in the data retrieval forms that they give to the districts?

Respondent: No, I don’t think so. We don’t differentiate. We just put abortion, that’s it.

SS: Do you think it’s important to differentiate?

Respondent: No, we can’t do it because abortion is illegal. We can’t do it, we can’t say that we did induced abortion, it’s illegal. If we did something that’s illegal, normally people have to do investigations. So we don’t differentiate, and the Ministry doesn’t either.

SS: What about for the purposes of research, to understand the scope of abortion?

Respondent: In that case, you could do a survey, I think. But we can’t make inquiries about this information at the level of the official system.

SS: Because it’s illegal?

Respondent: That’s the problem with induced abortion. We know it exists but since it’s reprehensible we can’t even document it. We can’t even say, I saw in such and such facility that there were so many abortions. Because you’re giving information that merits investigation. It’s illegal...giving information about induced abortion is very problematic, unless it’s legalized. If it were legalized, we could do it. If it’s not legalized we can’t do it (MOH Regional official).

In spite of a lack of data on induced abortion from PAC facilities, Ministry and NGO personnel spoke approvingly about PAC in a way that inferred its public health impact. The effectiveness of PAC was based on empirical observation rather than the results of scientific measurement:

Respondent: I think in a way, yes, people are sensitized, providers have been trained, and providers in turn sensitize people. This has reduced the complications of abortion
because now everyone who has bleeding or after a lateness comes to the health facilities. So we can prevent complications. I think it’s a very good thing.

SS : Do you think abortion is still an important factor in maternal mortality and morbidity in Senegal ?

Respondent: I think that abortion is part of maternal mortality and morbidity, but since the introduction of PAC, we are in the process of making big strides, also with respect to family planning…But I know that PAC is a good thing for mortality, it reduces a good portion of mortality and morbidity. I think we’re very interested in making it more popular, we can spread it more. And then we will reduce a good part of maternal mortality and morbidity (MOH District official).

There are many more places now where complications can be treated. In 2005, when I was working in Thiès, it was only done at the hospital. Now, there are 9 health centers in the region that can do it. The technology has been decentralized. And by 2009, we were receiving fewer complications at the hospital. Even the mortality rate related to abortion complications has gone down, it’s not so high anymore (Intrahealth employee).

They did a lot of community mobilization through conferences and sensitization campaigns. They created songs, slogans, poems and skits….And I think in a way, in any case, they say that when you do an evaluation in certain zones, there’s been a reduction (of cases), there aren’t any more. It’s a bit premature to say this, but we go by these statements (Child Fund employee).

DSR officials acknowledged significant weaknesses in the health information system. Yet, even these high level officials also drew on firsthand, practical knowledge to suggest that PAC had an impact on women’s health and on the health system itself:

I suppose that when there’s greater offering of services, there is improvement, but currently there aren’t health statistics to prove this, because with the withholding of data that we’re currently experiencing⁹, we can’t really justify these results. But through the results that we obtained from the survey on unsafe abortion, providers told us that there’s an improvement in PAC services, the MVA syringes are available, even the health committees are purchasing them, and that leads to an improvement of services…What interests us is to see if the strategies we’ve implemented to reduce abortion, especially in terms of primary prevention through family planning after PAC, are these progressing or not (DSR official).

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⁹ During my fieldwork, state health personnel had been on a ‘data strike’ (retention des données) since 2010. This entailed the withholding of health data from the central level of the Ministry of Health until their demands were addressed.
It’s been a long time since we’ve had these statistics, but in a general fashion, in any case, people really appreciate these services in the health facilities. I think it relieves them. I rarely hear nowadays of cases of mortality or morbidity related to abortion. We are in the process of going in the right direction. I don’t have the data to say that things have changed between 2009 and 2010, but I can say in an empirical sense that things are evolving in the right direction (DSR official).

The Ministry’s pro-choice partners acknowledged that PAC had yielded data that highlighted the need for treatment and mobilized support within the global community, as well as within individual countries. At the same time, they expressed serious reservations about the ability of these data to mobilize action to eliminate the underlying problem of unsafe abortion. A Gynuity Health Projects employee observed that although PAC provides life-saving services to women who need them, the intervention does nothing to address the causes of unsafe induced abortion:

Respondent: In some contexts it may have made people more aware of the problem of unsafe abortion depending on how it’s presented. In other contexts it may have helped push it under the rug.

SS: What do you mean by that?

Respondent: I mean that PAC is a way to address the consequences of unsafe abortion without actually addressing it. And so it’s easy to say, I mean for providers to continue to say, treat women who’ve induced their abortion with Misoprostol, without dealing with it. So when you come in an emergency situation or in a situation where I need to treat you, I’m happy to deal with you, but I can easily ignore all the reasons why you came to me in this situation (Gynuity employee).

Another technician was more cynical in her understanding of what PAC measures:

But you know that PAC is actually an indicator of failure. Right? Something has failed the woman if she is seeking PAC. And this is actually one of the main reasons why we moved to CAC. Because in our minds, PAC is completely inadequate. PAC is an indicator that a woman did not get the information that she needed. She did not find contraception that she needed. She did not find safe abortion care that she needed. And because of those factors and many others, she has actually chosen an unsafe method, or she’s resorted to an unsafe means of terminating a pregnancy. And that’s why she is a PAC case. PAC is NOT anything really that we should be proud of. It’s a failure. It’s a colossal, systemic failure...It’s an emergency. And you shouldn’t be having this number of thousands of emergencies like this. It shouldn’t be taking place (Ipas employee).
Ipas employees argued that in all their years of supporting PAC around the world, they did not have data that showed that these services had contributed to reduced maternal mortality. In contrast, data from around the world indicate that safe abortion care is associated with reduced abortion mortality and morbidity (Guttmacher 1999; Sedgh et al. 2007b; Sedgh et al. 2012; WHO 2011a). Consequently, the organization shifted its priorities from PAC to CAC, which includes safe abortion and treatment of abortion complications.

The varying interpretations of PAC data illustrate tensions between the PAC philosophies of the Ministry and the pro-choice NGOs as well as between local and external expertise. For the Ministry of Health and most of its NGO partners, data from the PAC program allowed them to demonstrate progress, which in turn encouraged further donor investment in the intervention and related services. The lack of data on induced abortion was of less concern because other data could be used to indicate progress. For pro-choice NGOs, the lack of data on induced abortion hindered efforts to show the contribution of unsafe abortion to maternal death and disability. While these personnel acknowledged the importance of PAC services, they placed higher value on data that suggest an inverse relationship between safe, legal abortion and abortion related mortality. Programmatic PAC indicators did not represent real progress in reducing abortion related death and disability. On the contrary, the routinization of PAC was indicative of broader political resistance to making safe abortion legally accessible to women.

The collection and interpretation of PAC data by the Ministry and many of its NGO partners constituted a boundary work strategy to maintain authority over abortion. The Ministry and its partners deployed PAC data that would elicit further support for operations research and related programmatic inputs. Data on the number of women receiving treatment or newly trained providers offered ‘evidence’ of gains made as well as areas of weakness. This evidence
could be used to persuade donors to procure more technology and supplies, train more medical providers, and launch new pilot projects. The partnerships between the Ministry and multiple international organizations and donors beginning in the late 1990s and continuing into the present suggest that PAC became a transnational field of public health practice in Senegal.

In spite of this transnational investment in PAC, the Ministry does not collect statistical data on induced abortion precisely because of the restrictive legal context of abortion. The Ministry’s focus on less politically threatening PAC data not only mobilizes support for programmatic inputs for PAC, but also adds weight to the discursive construction of PAC as an intervention for spontaneous abortion. The omission of data on induced abortion in the national health information system supports the Ministry’s efforts to separate induced abortion from PAC. The deployment of a particular kind of data engenders a self-fulfilling prophecy about the type of abortions treated in PAC facilities (spontaneous). This self-fulfilling prophecy ensures the political palatability of this intervention for policy makers at home and abroad.

Is PAC ‘enough?’ PAC and the possibilities for legal change

Perhaps the greatest source of tension between the Ministry of Health and the pro-choice NGOs was in their perception of the role of PAC as a catalyst for legal change. These agencies disagreed sharply over whether and how PAC could be used to lobby for a liberalized abortion law. They also disagreed over the types of advocacy that were feasible within the current social, legal and political context of abortion. These disagreements represent not only broader tensions between the PAC philosophies of these agencies, but also sharply different understandings of the legitimacy of abortion as a gender-specific medical service. While the Ministry and its partner NGOs understood PAC as an entry point to limited legal reform, most of these health
professionals did not support the broad liberalization of the abortion law favored by their pro-choice partners. Thus, in spite of broad support of PAC within this transnational consortium of agencies, there is little indication that the legal reform observed recently in African countries like Ethiopia (Ipas 2013) will take place within the near future in Senegal.

Pro-choice NGO personnel complained that the normalization of PAC facilitated complacence with respect to unsafe abortion. With PAC in place, policymakers could claim that they were actively preventing abortion-related mortality and treating morbidity. These technicians indicated that in countries with restrictive abortion laws, like Mexico, Ethiopia, and Nepal, the careful coupling of PAC with legal advocacy resulted in revision or clarification of the law that paved the way for safe, legal abortion (Ipas 2013). Some felt strongly that the resistance to revising abortion laws they encountered in Francophone African countries like Senegal was directly related to PAC:

Some of the PAC training has opened the eyes of certain individuals or certain decision makers to I guess become more open and comfortable with the idea of talking about induced abortion. But I’m not sure that programmers are ready to develop any programs that specifically intend to address the causes of induced abortion. I don’t know. PAC is an easy…PAC is easy. PAC doesn’t make…and there are organizations as you know that are now transitioning from PAC and talking about types of abortion services. What is involved in these types of trainings may have changed their attitudes, I don’t know. But right now I’m not sure that Senegal is ready to talk more about induced abortions (Gynuity employee).

I would say that it has helped maybe to make treatment easy for complications of unsafe abortion because people have been trained and equipment has been procured here and there. So maybe severe morbidity has been reduced to some extent. However, it has also blinded countries. It has blinded countries because people think that now that they are providing PAC they don’t need to do anything more (Ipas employee).

Well, a lot of people…because PAC has been there, we’ve talked about it, it’s less controversial to talk about…People have sort of steeped in PAC. And especially in Francophone Africa. Soins Après Avortement or SAA (Postabortion care or PAC). They only knew about SAA. Now we are talking about avortement sans risque (safe abortion). And they keep going back to SAA (laughs). People feel comfortable with PAC because it’s not controversial. And yet they know the ultimate and the best for women is to really
provide them with safe services before they get to the state where they can die or be maimed for life. So we are trying to bring up the advantages of pre-empting (laughs) the need for PAC and providing safe abortion. I always say that if you don’t want unsafe abortion to happen then you should provide safe abortion (Ipas employee).

Some NGOs, impatient with what they perceived as a slow pace of change, may have taken matters into their own hands with respect to providing or facilitating illegal abortion services. An Ipas employee explained how training providers in MVA for PAC essentially produced a cadre of providers who could also use the technology to safely practice clandestine abortion:

It definitely gave us cover, to put it bluntly, to do a lot of training in a lot of places, especially in Latin America. In Latin America, abortion laws are so severely restricted that that was the only way. And we knew and still know that in Latin America providers are doing private provision of induced services. We have not been able to document the extent to which providers are doing that privately…I mean, it’s illegal, they’re not going to tell us what they’re doing. So we haven’t been able to document it, but we know that that’s the case….So, year after year we’ve been doing these PAC trainings, with the blessings of the MOH. They know what we’re doing. You know, it’s not like they’re like, oh, well, it’s just PAC. They know exactly what we’re doing and why we’re doing it. And in many cases they are very supportive of what we’re doing because they know the law isn’t going to change. There isn’t any hope in Nicaragua for the near future that they’re going to lift the total ban on abortion that they have in that country. So the health providers and the MOH are often like, well you know, let’s just train on PAC (Ipas employee).

For this technician, the unspoken benefit of PAC was the ability to train providers to use abortion technology in settings where induced abortion is illegal. Although she suggested that there existed an unspoken agreement between Ipas and Ministry of Health personnel in their regions of intervention in Latin America, I found little evidence of such an agreement between this organization and the Senegalese Ministry of Health.

An MSI employee indicated that the organization was prepared to go a step further and use its facilities to provide safe (but illegal) abortions if requested by women. This technician explained that such practices occurred in the agency’s facilities in countries with restrictive
abortion laws while the Ministry of Health essentially looked the other way. MSI’s primary mandate in Senegal is to increase contraceptive prevalence through social marketing and direct provision of contraceptive services, but not abortion, at the agency’s clinics. I did not find evidence of an unspoken agreement with respect to abortion between MSI and the Ministry of Health. In fact, when discussing MSI during an interview, a senior DSR official clearly stated his understanding of MSI’s mandate in Senegal, which precluded abortion provision:

SS: Do you know if MSI also does PAC?

Respondent: I know that in other places, MSI does abortions. But in the protocol we defined with them, I told them clearly that in Senegal, abortion is not permitted. So it is out of the question for them to do abortions in their missions. Now, they are providers, they have their clinics. If a woman comes with complications of abortion, of course they can treat her. But it’s out of the question for them to practice induced abortion. That’s clear (DSR official).

Some pro-choice NGOs, then, in spite of their claims to supporting the Ministry’s goals to improve reproductive health, maintained a separate agenda with respect to facilitating access to safe abortion.

In contrast to the pro-choice NGOs’ concerns that not enough was being done to lobby for safe abortion, I find that the Ministry and other NGO partners were indeed engaged in abortion advocacy. However, their approach emphasized permitting abortion under a limited set of circumstances, namely in the case of incest or rape. Such an approach was deemed appropriate and pragmatic given the extremely delicate social and political context of abortion in Senegal.

In 2010 the DSR, in collaboration with Ipas, conducted a national situational analysis of unwanted pregnancy and unsafe abortion. This was the first comprehensive review of abortion since CEFORSEP published a review of the literature on clandestine abortion in 1998 (CEFORSEP 1998b). Although the results were not yet published during my fieldwork period, the DSR had
circulated drafts to abortion advocates such as the *l'Association des Juristes Sénégalaises* and *l’Association des Médecins Femmes*, as well as to researchers like me.

A DSR official who had been involved in PAC since the introduction described advocacy efforts to include permission for abortion in the case of rape or incest in a reproductive health bill presented to the National Assembly in 2005. Included in this bill were protections for health professionals that provide PAC and contraceptive services to teenagers and married women without spousal or parental consent. When members of the National Assembly threatened to throw out the bill because of the abortion provision, the DSR backed down in order to maintain the gains they had achieved with respect to contraceptives and PAC. Another DSR official described the political barriers faced by the Ministry in its efforts to revise the law with the following remarks:

In Senegal, I’m not sure that we’re ready to adopt a law that will authorize abortion generally. When you want to discuss this with let’s say a woman who is involved in women’s movements, in private she will be in favor of this, but if she has to say this with a microphone, on the screen, and defend abortion upon request, you will never see this. When you take the case of a deputy, or a senator in private, he will always tell you yes, but it’s difficult for him to accept even what I’m telling you here. When we elaborated the law on reproductive health in 2005, there were these aspects of rape. It was the women parliamentarians themselves who told us to remove that, and that if we don’t remove it, they will vote against that law. This is to say that things are not ready for a legalization of abortion in Senegal. I think there’s fundamental work that has to be done…but it will take time (DSR official).

If pro-choice NGOs were critical of Senegal’s PAC approach, some Ministry officials and NGO personnel were equally critical of what they perceived as an inappropriate fixation on abortion on the part of pro-choice organizations, and Ipas in particular. While Ministry officials and NGO officials expressed approval of Ipas’s support for legal advocacy, including the situational analysis, they also indicated that Ipas’s primary concern with abortion was out of step with the Ministry’s vision and broader reproductive health priorities. For these individuals, PAC
did not simply represent a short-term strategy to eventually liberalize the abortion law. Instead, PAC was an opportunity to strengthen existing reproductive health services, especially family planning:

We were able to convince Ipas that to come to a country only to sell material (the MVA syringe) isn’t good. You should at least help, support the implementation of a program or help to scale up a program in certain zones, and then you can introduce the material. And I think they understand now. It’s not just selling the material that interests Senegal. There needs to be a program. They came several times to this office to ask us if we would sell the material. I told them, you have to be strategic, we are not here to sell. We support the implementation of programs. If you have resources to help the country, to start or support a program...those who are trained will use the product... What interests them (Ipas) is not just…but to be frank it’s the legalization of abortion. We discussed this but as I said before, I’m not in favor of legalization upon request. They contributed to the program by integrating issues of rights and gender. And it stops there. This is to tell you that their strategies were beyond just distributing the abortion kits (CEFOREP employee).

Ipas is a partner that’s much more advanced than we are, that wants to legalize abortion completely (laughter). We try to have a happy medium, to have them with us, but also to look at our population and what it wants. We know that if we listened to them, maybe they would have influenced us to take certain decisions, but we try to take it easy with them, and they understand very well too. We always tell them that PAC is not just the legalization of abortion to in order to not have abortions. Family planning has to be available too (DSR official).

One NGO employee, involved with PAC from the very beginning, explicitly rejected the role of PAC as a catalyst for liberalizing the abortion law:

I’m not sure that in Senegal, even if we have a good PAC program, that it means that we will eventually legalize abortion. And I think that it’s not related. You can have a good PAC program that has been implemented and accepted, with quality services and with results of the impact on maternal mortality without a revision...in my opinion (CEFOREP employee).

In June 2011, Ipas invited me to attend a meeting of a multi-disciplinary task force assembled to implement the recommendations of the situational analysis on unsafe abortion conducted by the DSR. During this meeting, I observed a powerful example of the philosophical tension between the Ministry and Ipas unfolding in real time. At the end of the meeting, the
highest-level officials of each organization present at the meeting were asked to give closing statements. The Ipas official thanked everyone for their hard work and commended them for being ‘champions’ for reducing maternal mortality in Senegal. She reminded them that reducing unsafe abortion is perhaps one of the easiest ways to reduce maternal mortality. In order to do this, she insisted the law must change. She urged them to ask for the limit in their legal negotiations so that they could gain at least a little. She urged for advocacy at all levels and pledged continuing support for this advocacy from Ipas.

In contrast, the closing remarks by the head of the DSR emphasized the broader, long-term perspectives of any abortion advocacy related to PAC. This official reminded the audience that advocacy is not just about changing the law, but also ‘about changing the mentality of the population.’ Without a broader acceptance of abortion, a revised law would have no meaning. He pointed to female excision and child begging as examples of social issues that were addressed through law but lacked social traction. He reminded the audience of the failed attempt to include abortion provisions in the 2005 reproductive health law. Revising the law to permit abortion in the case of rape or incest can be done, he said, but changing the law for other indications will take time. They must approach this issue carefully and slowly.

If the Ministry has adopted a pragmatic, cautious approach to revising the law that makes sense within the social and legal context of abortion, this approach is also filled with tensions between the moral and public health aspects of abortion. My conversations with Ministry officials and NGO personnel frequently tapped into the negotiation of this tension between their ‘professional’ and ‘personal’ positions regarding abortion. Most Ministry officials and NGO programmers agreed that the restrictive law posed major constraints on maternal health and the provision of medical care. Women, fearful of arrest, either avoided health facilities or waited too
long to seek medical attention. Although the law didn’t explicitly require providers to notify police of suspected cases of induced abortion, severe penalties for complicity might encourage them to do so anyway. The law also influenced the health information system. Ministry officials and NGO programmers acknowledged that induced abortion was greatly underestimated in the national health information system because it only captured women who came to hospital and admitted to inducing abortion.

For these public health professionals, however, a broader liberalization of the abortion law did not offer a solution to these problems. Instead, they emphasized even further the need for quality PAC services that treated women irrespective of the origins of the abortion. Although most Ministry officials supported legal abortion in the case of rape or incest, none of them indicated that they favored abortion upon request. Furthermore, in their eyes the only acceptable model of legal abortion resembled the current model for therapeutic abortion, which is performed in hospitals and controlled exclusively by physicians. Many expressed concern that any other model might lead to abuse of a revised law by women who ‘lied’ about being raped and clandestine abortionists interested in profiting from abortion. Only one Ministry official, a midwife by profession, offered a model for legal abortion in the case of rape that was at once subversive and pragmatic:

Women who are victims of rape or incest should be able to do it. I know that most of the women who come for abortions will not always be victims of rape or incest but they should be put in that category, of rape or incest (DSR official).

Three Ministry officials explained that Islam was more flexible in its stance on abortion than Christianity. Some Islamic scholars indicate that the Qu’ran permits abortion between 40 and 120 days following conception (Bowen 1997; Sachedine 1990). Nevertheless, these officials did not indicate that such interpretations justified liberalizing the law beyond cases of rape or incest.
Among the NGO personnel, only one employee, from Intrahealth, explicitly indicated that he supported a broad legalization of abortion. While most NGO personnel favored abortion in the cases of rape or incest, they emphasized the need to improve family planning services rather than a broad legalization of abortion. One employee explicitly stated that his position on abortion was related to his religion:

Women who seek abortion did not observe their religion, no matter what their religion. In Senegal, we’re 95% Muslim, 4% Christian. And most of the time, those who do abortion, it’s people who do it outside of marriage, and it’s not good (CEFOREP employee).

In contrast to the claims of pro-choice NGOs that the Ministry and its partners were not doing enough about abortion, these actors were actively engaged in professional boundary work to maintain authority over this intervention in a setting where abortion is a political minefield. Boundary work entailed picking battles carefully, such as the decision to withdraw support for a law that would permit abortion in the case of rape and incest in order to protect provisions in the same law for medical providers who practice PAC and family planning. It included collaborating with international partners to conduct new research on unwanted pregnancy and induced abortion throughout the country. It included the discursive work performed by the Ministry and its partners to normalize PAC as a politically palatable Safe Motherhood intervention separate from induced abortion. The very act of introducing PAC in this context constituted professional boundary work to simultaneously maintain control over the public health aspects of abortion and to distance the agency from the moral aspects of induced abortion.

The purpose of this boundary work was to include PAC while excluding induced abortion from legitimate medical and public health practice. The very legitimacy of PAC rested on its separation from induced abortion. This separation between PAC and abortion reflects a more fundamental tension between the Ministry and its prochoice partners with respect to the relations
between gender, abortion and medicine. While prochoice organizations wished to incorporate abortion within the spectrum of reproductive health services to which all women are entitled, the Ministry and its partners understood induced abortion as a service which should be available under limited circumstances. Within this framework, safe induced abortion should only be legally available to women with unwanted pregnancies due to cases of rape or incest involving unwanted sexual relations. The legitimacy of abortion within medicine, therefore, is patterned after broader considerations of acceptable sexual and reproductive behavior for women in which sexuality, marriage and procreation are which inextricably linked. PAC and induced abortion under very limited circumstances are safely contained within these boundaries, while induced abortion for any other reason is not. The Ministry’s boundary work around PAC has further institutionalized the stigma of induced abortion in Senegal by strengthening the separation between this practice and the treatment of abortion complications. Given these circumstances, it is doubtful that reform of the abortion law in Senegal will extend beyond the cases of rape and incest in spite of advocacy efforts to broaden the scope of legal indications for abortion.

Conclusion

My research suggests that while PAC may have transformed the treatment of abortion complications, it has also reinforced the institutional stigmatization of induced abortion within medical and public health practice in Senegal. Using boundary work as an analytical framework, we see that the discursive and technical separation of induced abortion from PAC has been a critical strategy on the part of the Ministry to maintain the political acceptability of this intervention. This separation is in direct contradiction to the philosophy of PAC as conceived by pro-choice NGOs like Ipas, one of the earliest members of the global health community to support PAC services specifically for complications of induced abortion. The contradiction
between the philosophy of the PAC model and the manner in which it is practiced in Senegal occurs at the intersection of local and global abortion politics that mutually reinforce abortion stigma. Although USAID, one of Senegal’s largest donors for reproductive health, supports PAC, it is forbidden by the Helms Amendment to support other services or activities associated with induced abortion. The prohibition of induced abortion by Senegal’s penal code, coupled with strong anti-abortion religious sentiment, has rendered induced abortion a highly controversial subject for politicians, government agencies and women’s health advocates. The Ministry must navigate these intersecting politics as it practices PAC in a manner that maintains both its scientific and cultural legitimacy. While these boundary work strategies have rewarded the Ministry with the integration of PAC into the public health system and continuing donor support, they have reinforced the separation of induced abortion from mainstream medical and public health practice. Ultimately, this separation withholds modern medical care from women with unwanted pregnancies until they seek care for induced abortions performed outside the formal health system. In Chapter 7, I will show how this separation also leaves medical professionals to fend for themselves when confronted with cases of suspected induced abortion in state hospitals.
Although the Manual Vacuum Aspiration (MVA) syringe is a state-approved medical commodity in Senegal, this technology is not available through the national medical supply system of the Pharmacie Nationale d’Approvisionnement (PNA)/National Pharmacy of Supplies, where health managers can purchase supplies at district and regional depots. Unlike any other state-approved medical supply, MVA may only be purchased at the Dakar headquarters of the Centre Régional de Formation et Recherche sur la Santé de la Reproduction/Regional Center for Training and Research in Reproductive Health (CEFOREP)\textsuperscript{10}, after obtaining the signature of one of two high-level officials from the Division de la Santé de la Reproduction/Division of Reproductive Health (DSR) of the Ministry of Health. In this chapter, I explain the circumstances under which the preferred technology of choice for post-abortion care or PAC became isolated from standard channels of distribution for medical supplies in Senegal. I argue that the management of MVA constitutes another boundary work strategy on the part of the Ministry of Health to maintain authority over an abortion-related intervention in a country where induced abortion is forbidden.

I draw on studies of medical technology to understand what MVA does and how it participates in the accomplishment of PAC alongside a variety of transnational actors and institutions (Casper and Morrison 2010; Clarke and Montini 1993; Timmermans and Berg 2003). I demonstrate that the capacity of MVA to induce abortion complicates its ‘rightness’ (Casper and Clarke 1998; Fujimura and Clarke 1992) as a PAC technology in a country where induced abortion is legally prohibited.

\textsuperscript{10} See Appendix 3 for a list of local and international agencies involved in post-abortion care in Senegal.
My focus on technology also complements the analytical framework of boundary work undergirding the dissertation project. Sociologists have long recognized the negotiation of authority over technology as a significant strategy of professional boundary work (Abbott 1988; Conrad 2005; Freidson 1988; Zola 1972). MVA tells an important story of contested clinical, legal, professional and transnational boundaries with respect to abortion. I examine how medical and public health authorities have drawn boundaries between acceptable and unacceptable access to and utilization of MVA. This approach offers insight into the incongruence between MVA policies, discourse and practice at various levels of the health system.

This chapter offers three instances of ‘MVA-in-practice’ in Senegal. First, I trace the evolution of the current MVA supply and distribution system in Senegal. Second, I explore the politics around authorizing various types of health personnel to use MVA. Third, I show how policies regulating access to MVA at the DSR shape its utilization by medical providers at three hospitals in Senegal where I observed post-abortion care. I draw on multiple sources of data to understand the relationship between what MVA does and the politics and practices of its utilization, including direct observation of MVA utilization at three hospitals and interviews with Ministry of Health officials, NGO personnel and health providers. I review the introduction of MVA through operations research on PAC in Senegal. I examine data on various methods of uterine evacuation at three hospitals to understand how MVA compares to other methods. Triangulating these data offers important insight into contradictions between MVA policies and practices as well as implications for women’s access to quality, life-saving medical care.

I. The evolution of the MVA supply system in Senegal

In Chapter 5, I discussed how the introduction of MVA required careful management through operations research and advocacy by the Division de la Santé de la Reproduction (DSR)
of the Ministry of Health, the national university, and other local and international agencies. Operations research offered many compelling reasons to champion MVA as the preferred method of uterine evacuation: less risk of infection and uterine perforation; greater affordability for patients; faster treatment and recovery time; and amenable to utilization at lower levels of the health system by paramedical providers. In spite of these benefits, ensuring the political acceptability of PAC in a country where abortion is illegal required the DSR and its partners to show that MVA could be used within the national health system to treat complications of abortion rather than induce illegal abortion. In this section, I discuss the establishment of the national MVA supply system. The isolation of this system from the national chain of supply for medical equipment stands in contradiction to PAC’s philosophy of greater access and integrated services. I argue that this supply system is an essential component of the Ministry’s professional boundary work to ensure the separation of PAC from induced abortion.

During the early stages of PAC, the DSR secured its MVA supply through donations from organizations like Ipas. As PAC was decentralized to the district level throughout the country, the DSR searched for more sustainable solutions to ensure the supply of this technology. Several DSR officials and NGO personnel indicated that Ipas’s business model presented a significant barrier to integrating MVA into the PNA. Ipas, explained a DSR official involved in negotiations with the organization, only accepted ‘liquid cash up front’ in exchange for MVA stock. This approach proved incompatible with the business model of the PNA, which pays after the delivery of stock. The alternative to working with the PNA was to find a private distributor to purchase MVA kits. Such an alternative was unacceptable to the DSR because of the possibility of MVA falling into the wrong hands, including those in the private sector:
There was a hardware merchant who was going to be their distributor. I wasn’t comfortable with that because it meant that anybody could go and buy an MVA kit. We had to try to figure out how to make the supply system more secure (DSR official).

The initial solution was to assign the role of distributor to a referral hospital in the region of Dakar. In addition to being one of the first hospitals in the country to pilot post-abortion care, this hospital was also the third observation site in my study. The hospital purchased MVA from Ipas. Health officials would then travel to this hospital to buy their MVA kits. This arrangement proved problematic as other Ministry officials and hospital administrators began to complain that the hospital was inflating the price in order to make a profit (Dieng 2008; PopCouncil 2007). DSR officials and the former head gynecologist of this hospital vehemently denied these charges. The DSR then entered into an agreement with a local research organization, CEFOREP, which is still currently in place. CEFOREP purchases a supply of MVA kits from Ipas. State health providers and officials wishing to purchase MVA must obtain a note of approval from one of two designated DSR officials at the DSR headquarters in Dakar, and then pick up the kit at CEFOREP’s office, also in Dakar. The DSR official responsible for this system acknowledged that while it was far from perfect, it permitted the DSR to keep track of who had the syringes. Furthermore, the DSR had not yet experienced any stock outs, which, according to many DSR officials, were a far too regular occurrence with supplies stocked by the PNA.

Although this system has been in place for several years, I observed significant discontent among Ministry of Health officials and NGO personnel with respect to the supply of MVA. Many believed that the current approach was not sustainable precisely because it was not decentralized to the PNA like all other medical supplies. Furthermore, it was burdensome for health providers to travel all the way to Dakar to renew their MVA kits. Both a Ministry of Health district official and a technician from Intrahealth reported that the current system led to
the rapid deterioration and overuse of MVA kits. Both had observed defunct syringes during supervision. Several criticized the system as ‘incoherent’ and ‘obsolete’ since MVA has been integrated into the national list of essential medication. Others pointed out that it made little sense to exclude private providers, who had the same training as public providers, from the supply system. They criticized the logic of securing the technology, arguing that providers who wished to conduct illegal abortion would do so irrespective of the centralization of MVA at CEFOREP. Finally, the system was contrary to the public health goals of the PAC intervention to increase accessibility to life-saving treatment:

You can’t want something and its opposite. People who want to do illegal abortions will continue to do illegal abortions. This system, that requires people to go to CEFOREP, hinders accessibility. I think MVA should be in the PNA, and that’s that. It should follow the regular circuit. It will be more accessible to people if it’s integrated into the regular distribution system. The DSR can still monitor the purchases and ensure that there are clear criteria for use (DSR official).

Even the USAID official involved in Senegal’s national PAC program, a Senegalese physician who had previously served as a regional official for the Ministry of Health, reported that the current centralization of MVA was not entirely logical. If much more ‘dangerous’ products were available through the PNA, such as opium, why couldn’t MVA also be available, with proper supervision?

Not all disagreed with the current supply system. Two DSR officials and a regional Ministry of Health official underlined the importance of securing the MVA supply precisely because of Senegal’s abortion law. Limiting access to MVA was necessary to reduce the risk of the misuse of this technology for illegal abortion.

Several Ministry and NGO personnel expressed strong dissatisfaction with USAID’s policy that prohibited the purchase of MVA. It made little sense, according to these individuals, for USAID to support the national PAC program through training and supervision of providers
yet refuse to support the purchase of the main technology associated with this intervention. This incoherence was explicitly related to the capacity of MVA to induce abortion:

In reality, they say that they support the policies of the country, but when you supply MVA, you are in fact an actor with respect to abortion, and they don’t want to go that far. They have to protect their own interests (DSR official).

Ministry and NGO personnel offered many important critiques of the current supply system. While such an approach may have been necessary in the early stages of the PAC program, when even within the Ministry of Health there was concern about the misuse of MVA technology, this system was now incompatible with an intervention that had been decentralized to the district level throughout the country. This restrictive approach contradicted the philosophy of PAC, which calls for ensuring access to high quality, life-saving care to all women, especially those in remote areas. Nevertheless, persistent anxieties about the capacity of MVA to induce abortion continued to trump the philosophy of PAC. Relinquishing control over the supply and distribution of MVA to the PNA would threaten the boundaries constructed by the Ministry between right and wrong utilization of the device. The contradictory nature of the supply system must also be situated at the intersection of transnational abortion politics. As long as Senegal’s abortion law remains restrictive, MVA will remain a dangerous technology because of its capacity to safely and effectively terminate first trimester pregnancy. The Helms Amendment permits USAID to support every component of the national PAC program except the purchase and distribution of MVA technology. This policy configuration reinforces the institutional stigma of abortion through its exclusion from mainstream medical and public health practice. Later in this chapter, I will show how the exclusion of MVA from legitimate medical supply systems shapes the practice of PAC at the level of the health facility.

II. Authorization of personnel
In this section, I discuss another important contradiction between institutional discourse on PAC and policies regarding MVA technology. While the Ministry of Health has championed MVA as the preferred PAC technology, it has simultaneously limited MVA utilization to physicians and midwives at district, regional and national hospitals. Nurses stationed in rural health clinics, which serve the majority of Senegal’s population, are not permitted to use MVA. Rather, they have been trained to treat abortion complications with digital curettage, illustrated in Figure 3 below. This method involves inserting two fingers through the dilated cervix into the uterus and removing any loose tissue (DSR 2007).¹¹ I argue that the rationale for this limitation is again explicitly related to the capacity of MVA to induce abortion. More specifically, concerns regarding the risk of misuse of MVA by nurses at irregularly supervised rural health clinics have continued to limit this technology to higher levels of the health system. Restrictions on the utilization of MVA constitute part of the boundary work performed by the Ministry of Health to maintain authority over PAC by separating the intervention from induced abortion.

**Figure 3: Digital Curettage**

Source: Thiam, Suh and Moreira 2006.

¹¹ According to the Ministry’s norms and protocols for PAC, digital curettage should be performed with antispasmodics and antibiotics.
In Chapter 5, I explained how the introduction of PAC required careful management by the Ministry of Health to prove that MVA could be used appropriately within the health system. Ministry officials advocating for the introduction and decentralization of PAC faced critiques that PAC, and specifically the use of MVA, amounted to induced abortion. Part of the professional boundary work to maintain control over PAC required limiting access to MVA technology by placing it, according to the gynecologist in charge of operations research at one of the first hospitals to offer PAC in the country, in the ‘hands of trustworthy men.’ During the earliest stages of operations research, this meant limiting MVA to gynecologists at national hospitals (most of whom were indeed men). Eventually, midwives at district hospitals were authorized to use MVA. When it came to authorizing nurses at rural health clinics to use MVA, a United Nations Population Fund (UNFPA) employee involved in early PAC operations research described the difficulties encountered with the following remarks:

The Ministry didn’t have a problem with the material in the hands of midwives. It was when we wanted to extend further into the health system and involve the nurses in rural health clinics that we ran into difficulties with the Director of Health Services. Whereas we had a strategy that extended all the way to the very bottom of the health pyramid—the traditional birth attendant\(^{12}\) at the health hut. Yes, we wanted to go that far. In my opinion, state nurses in the health posts had the technical competence to use MVA. They had done the same studies, they have the same level of training as midwives. We could trust them but the problem was the management of the MVA kit, the MVA syringes. The Director of Health Services didn’t trust nurses. For him, the difference between using the syringe to treat abortion complications and using it to do an abortion wasn’t clear. He didn’t want the material to be used for purposes other than PAC (UNFPA employee).

Why were nurses considered more likely to abuse MVA than other medical professionals? For some participants, the conditions of work at health clinics—geographically isolated and irregularly supervised—would facilitate inappropriate use of the technology. For

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\(^{12}\) A traditional birth attendant or midwife is considered to be unskilled in obstetric care by organizations such as the WHO and UNFPA. In Senegal, traditional birth attendants often manage normal deliveries in health huts, the lowest level of the health system. They are supposed to refer women with obstetric complications to the district hospital.
others, the problem was the moral character of nurses, who could not always be trusted to resist the temptation of engaging in the illegal but lucrative practice of abortion:

I was always nervous about the management of that material. If you happen upon someone who is dishonest, he will do abortions. When I was working at the DSR, people would pay up to 300,000 or 400,000 CFA for an abortion. That’s twice the monthly salary of a nurse. If you put that material in his hands, he will use it to earn money (UNFPA official).

In the health posts, the provider is alone. I don’t want to say that I doubt their morality, but if you see the conditions in the districts… Sometimes they offer you enormous amounts of money. If you can’t resist money, you run the risk of doing illegal abortion. With MVA, it’s so simple (Physician).

The nurses at health posts are men and they are more likely than midwives to use the material to induce abortion. It’s just my personal opinion (Physician).

I don’t think MVA should be done at health posts. We have to avoid induced abortion with MVA. If we let everyone do it, it will be as if induced abortion is free and official. Everyone will do it (laughs)(Midwife)!

Some participants expressed more concern about the level of infrastructure available to nurses in health clinics. For these individuals, ensuring the appropriate environment in which to practice MVA was more urgent than the risk of abusing the technology to induce abortion. Of utmost importance was the ability to sterilize the material after each procedure. As some sterilization technology, such as an autoclave, requires electricity, these individuals were concerned about proper sterilization at health clinics that lacked electricity or experienced frequent power shortages. Others questioned the technical competence of nurses with respect to administering anesthesia injections. One midwife argued that since nurses at health posts did not have blood banks in case of hemorrhage, they should not be authorized to use MVA.

Scholars of medicine have found that in their efforts to secure professional authority over medical technology and procedures, physicians have argued that lay practitioners lack not only the technical skill but also the moral character required to practice medicine. American
physicians perceived midwives, and midwives from immigrant and minority communities in particular, as ignorant, filthy and therefore unfit to manage childbirth (Fraser 1995; Wertz and Wertz 1969). Although reluctant to associate themselves with abortion, obstetrician-gynecologists bolstered their efforts to convince state legislators to exclude non-physicians from abortion practice by conjuring images of incompetent and greedy ‘abortionists’ (Joffe 1996; Reagan 1998). In post-colonial African states such as Uganda, physicians urged authorities to regulate dangerous ‘traditional needle men’ and other unqualified practitioners who were encroaching upon their territory by prescribing and selling modern medication (at lower prices) (Iliffe 1998). While I have argued that the restriction of MVA in Senegal to midwives and physicians represents a boundary work strategy on the part of the Ministry of Health to maintain authority over the PAC intervention, these restrictions should also be understood as a form of jurisdictional protection. By limiting MVA to hospitals and health posts, the Ministry of Health ensures that this technology will remain under the direct authority of physicians. Although midwives at these facilities practice the majority of MVA procedures, they remain under direct supervision of gynecologists. This policy also ensures that physician-controlled facilities reap the profits of MVA. At approximately 10,000 CFA (approximately USD 20) per procedure, MVA represents a significant amount of money that can be reinvested into hospital budgets. In contrast, nurses at health posts are only permitted to conduct PAC using digital curettage, a procedure that generally costs the patient half the amount of MVA.

Many participants disagreed with the policy restricting MVA from nurses at rural health clinics. There was no evidence, they reported, that nurses are more likely than other practitioners to use MVA to conduct illegal abortion. Furthermore, they did not believe that such restrictions would stop some practitioners from performing illegal abortion, irrespective of the methods used.
to induce abortion. Rather, they explained that the policy simply limited access to quality, life-saving care for women in rural zones of the country. Others pointed out that nurses at health clinics had been trained to offer long-term contraceptive methods like implants and injections. With proper supervision and training, nurses could just as well practice MVA. Similarly, an Intrahealth employee dismissed the notion that nurses should not do MVA because they lack training in administering anesthesia. If nurses are authorized to administer anesthesia for other purposes, like treating an abscess, he quipped, they can use it for MVA. Many participants indicated that authorizing MVA at health clinics would reduce the PAC caseload at district and regional hospitals. Rather than referring women they could not treat with digital curettage, nurses and midwives at health clinics could treat safely women with MVA. A midwife at a health clinic in the same region as the second study hospital explained how authorizing MVA in health clinics would be safer and more cost-effective for patients:

If you get a case of abortion that requires MVA, you have to evacuate the patient. You have to go look for transportation to the district hospital, you have to find money to pay for it. Once you get to the hospital, MVA costs 10,000 or 15,000 CFA. You have to pay for medication. If we decentralized MVA to health clinics, it would be less of a burden for people. It really irks me to have to refer women to the district hospital (Midwife).

During my fieldwork, I learned that in response to advocacy from agencies such as Intrahealth, Child Fund, UNFPA and WHO, the norms and protocols for PAC had been revised in 2010 to extend MVA to rural health clinics. Yet, some Ministry officials and NGO personnel expressed reservation with respect to the timely application of this revised policy:

The revised norms and protocols have not yet been disseminated. They were revised last June, but they haven’t yet been disseminated. I’m not saying that it hasn’t been done, but as a provider at a peripheral level of the health system, I don’t have any document that shows that the nurse at a rural health clinic can do MVA (Ministry of Health district official).
Impatient with the pace of the DSR, some regional and district officials had already authorized rural health clinics in their jurisdiction to use MVA. The same district official who indicated above that the revised norms and protocols had not yet been released revealed that he had permitted a midwife at a health clinic in his district to use MVA. The clinic received a significant number of women with abortion complications. Rather than referring these patients to the district hospital (the third hospital where I observed PAC), he preferred to assign a trained midwife to this clinic so that she could treat abortion complications with MVA.

During my fieldwork at the second hospital site, I joined a team of Child Fund community workers on a visit to a rural health clinic in a neighboring district. The head nurse explained that the head regional official had assigned a midwife trained in MVA to the health post. In addition, this medical officer had purchased an MVA kit for the facility. This facility had a significant PAC caseload, including patients from other nearby districts who couldn’t afford to travel to the district hospital. In contradiction to the norms and protocols at the time, this Ministry official permitted the use of MVA at an unauthorized facility in order to increase accessibility to quality care. Unfortunately, the nurse explained that the MVA syringe was now broken and the midwife had to refer PAC patients to the district hospital.

When asked what he thought about the restriction of MVA to physicians and midwives, the nurse complained that it made little sense to trust midwives but not nurses. He also argued that given the number of PAC patients they received, it was more effective to treat rather than refer these patients to the hospital. “Nurses,” he explained, “are really midwives (sage-femmes). We are ‘mid-men (sage-hommes).’ We do deliveries all the time. We do everything: prenatal care, post-natal care, and vaccinations.”
Toward the end of my fieldwork, during a conversation with a group of nurses at the headquarters of the national professional nursing association in Dakar, these professionals also expressed strong disagreement with the restriction of MVA to physicians and midwives. Such a policy was founded on erroneous perceptions of nurses. Nurses, they argued, were medical professionals with ethical standards similar to physicians and midwives. Although they acknowledged that women solicited nurses for illegal abortions, they insisted that women also sought abortions from midwives and physicians. Furthermore, they argued, stories of illegal abortion by ‘nurses’ at health clinics in the press were often inaccurately reported. Just because someone wears a ‘white coat’ doesn’t mean he or she is a nurse. They discussed several cases in which the press had reported that a nurse had been involved in illegal abortion, only to discover later that the individual had no medical training whatsoever. Finally, they indicated that only cases that result in complications end up in the press. Midwives and physicians with private offices are better equipped to practice safe abortion and remain undetected by criminal justice authorities. “Physicians,” explained a nurse, “are very good at hiding themselves.”

My review of the legal archives appears to support the nurse’s claim that physicians are not prosecuted as often as other providers who practice illegal abortion. While my review covered only one region of the country (Dakar), it showed that among 42 cases of illegal abortion prosecuted by the state between 1987 and 2010, none involved physicians. Instead, implicated practitioners were predominantly midwives, nurses, nursing assistants and individuals lacking medical training entirely. At the same time, these data could also be used to support the widespread notion that paramedical providers are more likely to practice illegal abortion.

Operations research on PAC around the world has shown that MVA can be used safely by paramedical providers (Corbett and Turner 2003; Huntington 1999; Johnson et al. 2002;
Otsea et al. 1997; PAC-Consortium 1995; PopCouncil 1999). Yet, from the introduction of PAC in 1997 until 2010, the Senegalese Ministry of Health prohibited the use of MVA by nurses in rural health clinics. Concerns about the risk of MVA abuse by nurses in these facilities trumped the philosophy of PAC that calls for expanding access to life saving technology to women in isolated, rural zones. Ensuring the political acceptability of PAC required restricting MVA utilization to health professionals in well-supervised facilities. I find, however, that professional boundary work around MVA was not solely directed to maintaining authority over the PAC intervention. This boundary work also aimed to protect the physician-dominated monopoly over MVA technology. The practices of district and regional Ministry officials suggest that in spite of its MVA policy, the DSR does not fully control the distribution and utilization of MVA technology. In the remaining section, I show how the DSR’s authority over MVA is challenged even further by the daily practices of health providers in the three hospitals where I observed PAC.

III. Utilization of MVA at three hospitals

In this section, I show how the Ministry’s MVA policies shape the practice of this technology in health facilities. Using PAC data from three hospitals, I compare MVA to other methods of uterine evacuation. I examine the organization and availability of MVA services as well as the personnel authorized to use this technology. I explore how health providers store and renew MVA kits. By examining the daily utilization and management of MVA, I demonstrate how these practices often contradict institutional discourse and policy regarding the need to keep MVA secure. I also show how MVA policies complicate the capacity of health providers to offer quality post-abortion care, which in turn restricts access to such care for women patients.
Methods of uterine evacuation

My review of PAC data at three hospitals suggests that the Ministry’s efforts to champion MVA as the preferred method have been quite successful. MVA was the most frequently used form of uterine evacuation at all three hospitals. A glimpse of MVA use at each hospital, displayed in Figures 4\textsuperscript{13}, 5 and 6\textsuperscript{14}, reveals a number of other noteworthy trends. First, MVA outpaced digital curettage as late as 2008 as the main method of evacuation in Hospital 2. In contrast, MVA was already the most frequently used method in 2006 in the first and third hospitals. This may be explained by the fact that the first and third hospitals implemented PAC earlier than the second hospital. As a tertiary regional hospital, the first hospital would have been authorized to use MVA earlier than the second hospital, which was a district hospital. The third hospital was among the first three testing sites for MVA in the earliest round of operations research starting in 1997.

Figure 4: Uterine evacuation at Hospital 1, 2006-2010

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{figure4.png}
\caption{Uterine evacuation at Hospital 1, 2006-2010}
\end{figure}

\textsuperscript{13} Data on digital curettage in 2009 were omitted from annual hospital reports. I have supplemented this data point with an estimate of digital curettage derived from my review of the 2009 PAC register.

\textsuperscript{14} EVA stands for Electric Vacuum Aspiration.
Second, as late as 2010, thirteen years after the introduction of PAC to Senegal, digital curettage still accounts for a significant portion of first-trimester uterine evacuation at all three hospitals. At the first hospital, 37% of PAC cases were treated with digital curettage; 25% at the second hospital; and 13% at the third hospital. Although the Ministry of Health recognizes digital curettage as a method of uterine evacuation in its norms and protocols for PAC (DSR
MVA is the preferred method due to clinical, cost and organizational benefits demonstrated by operations research conducted in the late 1990s and early 2000s. Yet, evaluations of PAC services have found that in spite of the availability of MVA in secondary and tertiary facilities, providers continue to use digital curettage. Reasons for the persistence of this method include a shortage of personnel trained in MVA, a shortage of MVA material as well as the reluctance of some providers to adopt a new technology (PopCouncil 2007; Thiam, Suh and Moreira 2006). The head gynecologist at the second hospital complained that in spite of her efforts to encourage midwives to use MVA, some continued to use digital curettage because it was ‘easier’ and ‘faster’ than MVA.

Third, while D&C has practically disappeared from the first and second hospitals, it is still practiced at the third hospital. The head midwife and gynecologist at this hospital explained that as a training site for gynecologists, the facility was obligated to offer opportunities to learn and practice D&C. We will see below, however, that the persistence of D&C at this facility also stems from the manner in which continuing concerns about the possibility of MVA abuse shape the organization of PAC services.

Schedule of MVA services

While MVA services were available around the clock every day at the first and second hospitals, the third hospital offered MVA only during the day shift on weekdays. Women who arrived at night or on weekends at the third hospital were treated with either digital curettage in the delivery room or electric aspiration or D&C in the operating theater. Supervisors at this site explained that MVA provision was limited to weekdays when senior gynecologists were at the hospital. This particular organization of services was implemented when PAC was first piloted in 1997. The senior gynecologist who first implemented PAC is now the head physician of the...
district and is therefore no longer in charge of the facility’s maternity ward. Nevertheless, his decision to limit MVA services to daytime shifts on weekdays remains in place. This limitation is explicitly tied to his concerns regarding the misuse of MVA to induce abortion:

The service ends at 2 pm because we have to leave the material in the hands of reliable men. I put everything in place now so that tomorrow I won’t be exposed. So if someone wants to use the material for illegal abortion, he does it at his own risk. The night shift is uncontrolled. There are only interns. They can take the material into some corner and do their abortion, whereas with D&C, you need two or three people. That’s why I forbade MVA after 2 pm (MOH District official).

Concerns about MVA abuse contribute significantly to the organization of services at this facility. Unlike the other two study hospitals, one of which was also a tertiary level facility, MVA services at the third facility do not adhere to national norms and protocols for PAC that recommend 24/7 access for women to this technology. Instead, MVA services are structured to prevent the use of MVA for illegal abortion at the hospital. MVA services at this facility also reflect the institutional production of abortion stigma for both medical providers and women. First, this schedule pits certified gynecologists against other health professionals, including medical interns, midwives and nurses, by deeming only senior practitioners trustworthy enough to responsibly practice and supervise MVA. Second, the prevention of MVA abuse is prioritized over ensuring women’s access to safe and effective uterine evacuation technology at all times. Women who arrive at night or on weekends are not only denied the technology associated with less risk of infection and perforation, but they also must absorb the higher costs associated with D&C, including general anesthesia and longer hospitalization fees.

**Personnel authorized to use MVA**

The third facility also differed from the first two study hospitals in that only physicians were authorized to use MVA. While midwives performed nearly all PAC treatment at the first
two facilities, physicians at the third hospital practiced MVA, EVA and D&C while midwives were limited to digital curettage. Doctors thus performed the majority of uterine evacuation procedures. Table 10 shows that in 2009 and 2010, doctors performed approximately three quarters of procedures.

Table 10: Type of PAC provider at Hospital 3, 2009-2010

<table>
<thead>
<tr>
<th>Type of Provider</th>
<th>2009</th>
<th></th>
<th>2010</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctors</td>
<td>1072</td>
<td>73.1</td>
<td>848</td>
<td>77.6</td>
</tr>
<tr>
<td>Midwives</td>
<td>241</td>
<td>16.4</td>
<td>179</td>
<td>16.4</td>
</tr>
<tr>
<td>Joint</td>
<td>23</td>
<td>1.6</td>
<td>4</td>
<td>0.3</td>
</tr>
<tr>
<td>No Information on type of provider</td>
<td>131</td>
<td>8.9</td>
<td>60</td>
<td>5.4</td>
</tr>
<tr>
<td>Total abortions treated</td>
<td>1467</td>
<td></td>
<td>1091</td>
<td></td>
</tr>
</tbody>
</table>

Providers attributed this organization of services to the facility’s identity as a training site for physicians. The head gynecologist and midwife also explained that not all of the facility’s midwives were trained in MVA. However, I find that the restriction of MVA to physicians reflected broader concerns on the part of the former head gynecologist who first implemented PAC about the abuse of the technology. A midwife at this facility described his approach with the following remarks:

There are midwives trained in MVA here, but the former head doctor didn’t want midwives to do MVA, because he didn’t want to give them access to the material so that they do illegal abortion to make money. He said as much here, in front of everyone. He said there were some midwives he trusted, and others he didn’t. I think he could have created a space in the delivery room to do MVA, so that if someone is doing MVA, everyone can see and so it wouldn’t be possible to use MVA clandestinely (Midwife).

Physicians did not appear to be concerned about the abuse of the technology by midwives at the facility. Instead, their support of the MVA restriction was based on professional expertise. Several of them described MVA as a ‘medical act’ that was best restricted to physicians. Both
The current head gynecologist and midwife indicated that in order to increase the availability of MVA services, midwives should be authorized and trained to practice this technology. Although the head gynecologist explained that he soon planned to train some midwives, my fieldwork at this site ended before such training began.

The organization of MVA at this facility is perhaps best understood through the facility’s identity as one of the first PAC sites in the country. Although another gynecologist is in charge of the maternity ward, the MVA policies implemented by the previous head physician are still in place. A self-described ‘pioneer’ of PAC, this physician personally supervised the implementation of MVA at this site. To protect himself against charges that he was ‘promoting’ abortion, he developed strict rules regarding the utilization of MVA. While this physician is no longer the head of the maternity ward, he is still the highly respected head physician of the district, with offices on the same compound as the hospital. One of the physicians referred to him as the ‘lion’ of the health district. His continuing presence may explain the persistence of this particular organization of MVA services.

**Location of MVA services**

At all three hospitals, patients with complications of abortion were first admitted to the delivery room. Providers treated patients deemed eligible for digital curettage in the delivery room. The first and third hospitals, both tertiary facilities, had separate rooms for MVA services. At the second hospital, midwives performed MVA in the delivery room. Providers at all facilities, even those with separate rooms for MVA, noted that the organization of PAC services failed to offer these patients sufficient privacy during triage, initial questioning and treatment.
They understood PAC as a ‘sensitive’ intervention that required measures to protect the patient’s confidentiality:

The premises are a problem. We should have separate rooms for PAC. We do digital curettage in the delivery room. There’s not a lot of confidentiality. There should be specialized rooms (Midwife).

We should also have a separate room for MVA but we don’t have one. There are only two. We have a lot of patients needing MVA, but there’s not enough space. Sometimes it bothers patients. You have to respect the patient’s privacy (Midwife).

At the first hospital, midwives practiced aspiration in a room a few steps away from the delivery room. Equipped as an operating theater, this room had a large, well-upholstered examination bed and powerful mobile lamps attached to the ceiling that midwives used during treatment. Midwives circulated back and forth between the MVA and delivery rooms as they cared for patients, assisted by student midwives, nurses and nursing assistants. Providers generally did not spend much time in this room unless they were treating a patient. They filled out the PAC register at a table in the delivery room. They also cleaned and sterilized MVA material in the delivery room.

At the third hospital, physicians practiced MVA in a small room in the maternity ward, also a few steps away from the delivery room. Like the MVA room in the first hospital, there was one examination bed in the room. Although there was a lamp, I observed a physician instruct a student physician to use the light on his cell phone for additional light during MVA procedures. Next to the room was another small room where women could lie down to recover following treatment. The windows were generally closed and covered with drapes.

In contrast to the delivery room, which was equipped with ceiling fans, this room had an air conditioning unit. Unlike the first hospital, a nurse’s assistant was responsible for managing the MVA room. She prepared the material for physicians prior to each patient and cleaned and
sterilized the material after treatment. She also set up IVs and administered injections. She often ate her meals and prayed in the room in between patients. From time to time, she would lock the room if she had to dash out to perform errands. Quite often, however, my assistant and I would find the room unlocked and unattended. The attending physician generally arrived at the MVA room between 9 and 10 am and stayed until he or she had performed all the scheduled aspirations for the day, usually by early afternoon. He or she also filled out a special register for MVA as well as prescriptions for patients’ medication in the room. The head midwife filled out the general PAC register in the delivery room that included cases treated with digital curettage, electric vacuum aspiration (EVA) and D&C. The nurse’s assistant locked the room after all patients for the day had been treated and reopened it the following morning on weekdays. The room remained locked on weeknights and weekends.

Midwives at the second hospital practiced PAC in the delivery room, which was equipped with three examination beds. With neither air conditioning nor fans, providers usually kept the windows open for air circulation as well as extra light. As midwives attended to both delivery and abortion patients in this room, most of their time was spent here. MVA material was cleaned and sterilized in the delivery room. Midwives completed the PAC register in a small room next to the delivery room where patients were initially triaged and examined upon arrival to the maternity ward.

The second hospital demonstrated how the PAC model, which calls for separate treatment rooms for PAC, often collides with the priorities of decision-makers within health facilities and health districts. The head gynecologist expressed significant frustration regarding the practice of PAC in the delivery room. She indicated that there was a separate room for MVA next to her office that had been approved by district health authorities. Although the room was
equipped with an examination table, the health district had not yet approved the installation of an appropriate drainage system. Attributing the delay to a ‘lack of political will’ on the part of the district, the physician explained that they would have to continue to practice MVA in the delivery room until the problem was resolved.

Managing MVA technology: navigating between security and quality

I observed an important contradiction between institutional discourse on ‘securing’ MVA to prevent abuse and the actual practices related to managing the technology at health facilities. Especially in the first two hospitals, providers seemed more concerned with preserving the quality of MVA kits than with keeping the kits under lock and key. At the first hospital, the MVA kit (including syringe and cannulae) was stored in the MVA room, which was never locked. Providers indicated that locking the room would hinder access to the room and delay services for patients. The head midwife kept a spare kit locked in a closet in her office. In addition, she also removed defunct cannulae from the maternity ward and kept them in her office to prevent ‘people from using them from other purposes.’ She explained that on average, they ordered two new kits two or three times a year. I observed both a new and an old kit in her closet.

At the second hospital, I observed one MVA kit that was kept unlocked in the delivery room, available to all midwives. Midwives indicated that although just one kit was in circulation, there had previously been a separate kit for each of the four shifts. The head gynecologist explained the shift in circulation policy as follows:

I received a donation of kits recently from the Ministry. But I keep these in my office. I have 4 kits. Before, I would give one kit to each team. But they were broken very quickly, and then if one breaks and I replace it for one team I have to replace it for every team. So now I leave just 1 kit for all 4 teams, and I replace it when needed. I think the
The material shouldn’t be available to everyone (Physician).

The head midwife and several other midwives at this facility also reported that there was only one MVA kit in circulation. While observing a midwife one day, however, she showed me two other kits kept in closets in the delivery room. She explained that while the kits were there, she only used the kit that everyone else used.

At the third hospital, I observed two MVA kits in use in the MVA room. One day during fieldwork, the nursing assistant in charge of the MVA room received three new kits. She logged them into a notebook titled ‘Materials Received’ and explained that she would replace the two current kits with the new ones. Indeed, the following morning, she had replaced the two kits and joked with the attending physician that he would ‘inaugurate’ the new material. The following day, I managed to peek inside the closet in the recovery room and observed a plastic container with MVA material as well as a plastic bag containing a few cannulae. I did not see remaining the third kit. When asked what she did with the old material, the nursing assistant indicated that she ‘threw them away.’ The head midwife also reported that old kits were ‘destroyed’ and then discarded.

Among the three study sites, the management of MVA material at the third hospital followed most closely the logic of securing MVA technology reflected in institutional discourse on MVA. The material at the third hospital was only available when the MVA room was open from approximately 9 am to 3 pm on weekdays. Yet, even at this site, MVA material was not as ‘secure’ as recommended by MVA discourse. In spite of concerns regarding access to MVA by non-physicians, a paramedical professional maintained considerable access to this technology. The nursing assistant not only controlled entry to the room where MVA was stored, but she was also responsible for assembling, dissembling, sterilizing and discarding MVA material. She
reported that a physician had shown her how to do MVA and had let her perform the procedure on a patient on at least one occasion. We observed her discussing with one physician the MVA techniques of another physician, complaining that he conducted the procedure ‘too long’ and induced further bleeding. In spite of restrictions around MVA utilization, some paramedical providers indeed have access to this technology in addition to opportunities to observe and practice its utilization.

At the first and second hospitals, MVA material was never locked away in a closet or cabinet. Rather, it was accessible to midwives during both day and night shifts. Furthermore, at the second hospital, which lacked a separate room for MVA, kits that were no longer in use appeared to be lingering in the delivery room.

Especially at the first and second hospitals, providers expressed more concern about deteriorating MVA material as well as the difficulty of ensuring appropriate sterilization procedures with limited MVA supplies:

We need to keep better watch over the material, because it deteriorates quickly sometimes (Physician).

The syringe should only be used 25 times before replacement, but sometimes we use it more than double that amount. We put vitamin oil on it now to lubricate it. We just have to make do. We use it much more than that. It really is a problem. It often doesn’t work (Midwife).

If each midwife had her own MVA kit, it would be better. With four kits, each midwife could take care of sterilizing her material properly. Now, there’s just one kit in circulation. What is the condition of the material in that box? It’s not at all agreeable (Midwife).

Indeed, I observed midwives at the second hospital placing a lubricant on the syringe prior to utilization. After several weeks of observation at this hospital, midwives began drafting me into the application of the lubricant on the syringe, among other minor tasks. There was also medical tape wrapped around the head of the syringe to keep it in place.
Physicians who practiced MVA at the third facility did not express concerns about the risk of deteriorating MVA material. Both the head midwife and gynecologist reported that they never experienced MVA stock-outs, and that there was always at least one extra syringe available in addition to the two syringes used in the MVA room. However, careful planning was required to obtain new kits even though this facility is located in the same region as CEFOREP, where the national supply of MVA kits is stored. During a staff meeting, I observed the head gynecologist inform a doctor that a new kit would be picked up when a staff member attended a training seminar at CEFOREP later in the month. This suggests that MVA kits were not ordered on a regular basis, but according to need, and also coordinated with other professional events in the city of Dakar.

**Stocking MVA: a case study of MVA availability and quality at 3 hospitals**

To further contextualize providers’ concerns regarding the overuse of MVA, I apply an Ipas model for restocking MVA (Hudgins and Abernathy 2008) to MVA data from the three study sites. A review of restocking procedures around the world conducted by Ipas found that facilities often obtained MVA kits as needed (approximately two or three at a time). Such practices led to shortages if one or more syringes were damaged. The average lifespan of the MVA syringe is between 25 and 50 procedures. While some aspirators have reportedly lasted for up to 100 procedures with careful maintenance, the most conservative estimated life span is 25.

Ipas developed a formula for calculating the need for reserve stock using the concept of ‘months of supply (MOS) on hand,’ in which an MOS is the number of devices that will be used in the facility in a month. An MOS is calculated by dividing the number of procedures per
month by the conservative estimate of MVA’s lifespan (25). The MOS for a clinic with 30 MVA cases per month would thus be 30/25 or 1.2 aspirators. A clinic that orders a month supply every three months should have a supply of 3 x 1.2 aspirators, which rounds up to 4 aspirators. In other words, if there is only one aspirator available for use, three more should be ordered (Hudgins and Abernathy 2008). Figure 7 below displays recommendations for restocking MVA based on the average caseload per day. The example of the clinic with 30 MVA cases per month appears in line 2 of the table, with an average of 1 case per day.

**Figure 7: MVA initial supply and re-supply**

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average caseload per day</td>
<td>Cases to plan for (95% coverage)</td>
<td>Active Devices Needed</td>
<td>Reserve Maximum (3 months of supply)</td>
<td>Reorder Point (1 month of supply)</td>
<td>Total Initial Stock</td>
<td>Devices to Replace Each Year</td>
</tr>
<tr>
<td>0.5</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>1</td>
<td>3</td>
<td>4</td>
<td>4</td>
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<td>11*</td>
<td>37</td>
<td>12</td>
<td>48</td>
<td>146</td>
</tr>
</tbody>
</table>

*Two processings per shift or day


My fieldwork at the three hospitals suggests that MVA kits were stocked according to the ‘as needed’ approach described by Ipas. How does this compare to the Ipas restocking guidelines? To answer this question, I examine a full year of PAC and MVA data (2010) from the three hospitals, displayed in Table 11. I compare these data to restocking practices observed during fieldwork in the early part of 2011. As my fieldwork occurred during the first half of
2011, it is not possible for me to compare 2010 MVA data to 2010 restocking practices. Based on my fieldwork, however, it did not appear that restocking practices varied significantly from year to year. This comparison therefore offers at least some insight into how MVA supply systems compare to Ipas guidelines. If we compare the data in column E in Table 11 to the Ipas recommendations in column F, we see that Hospital 2 met the Ipas recommendations for currently available MVA kits while Hospitals 1 and 3 fell short of these requirements.

Table 11: Estimated availability of functional MVA in 3 hospitals, 2010

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>1</td>
<td>361</td>
<td>30</td>
<td>189</td>
<td>16</td>
<td>0.53~0.5</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Hospital</td>
<td>389</td>
<td>32</td>
<td>289</td>
<td>24</td>
<td>0.8~1</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>1092</td>
<td>91</td>
<td>689</td>
<td>57</td>
<td>1.9~2</td>
<td>6</td>
<td>3</td>
</tr>
</tbody>
</table>

Comparing the data in column D (the monthly average of MVA procedures) to the conservative estimated lifespan of MVA (25 procedures) also offers insight into the potential for overuse of MVA. In the first hospital, the monthly average of procedures was 16, which was under the 25 recommended procedures per kit. However, if we consider that new MVA kits were ordered only two or three times a year, such a kit could be used over 25 times before replacement. The same is true for the second hospital. Furthermore, if each hospital had only one kit in circulation, as was the case in the first and second hospitals, cleaning and sterilization of material after each procedure would lead to delays in service on days with multiple patients
requiring MVA. Although the third hospital solved this problem by keeping 2 kits in circulation, each kit would be used on average 28.5 times (57/2), which also exceeds the recommended lifespan.

It should not be surprising that providers at the first and second facility were more likely than providers at the third facility to express concerns about the deterioration of MVA material. The analysis above suggests that in both facilities, it is likely that MVA syringes were used in excess of the lifetime of procedures recommended by the manufacturer. Although the second hospital may have had the recommended amount of MVA syringes on hand, supervisory personnel may not have replaced the syringes in a timely enough fashion to prevent the deterioration of material currently in use. Both of these hospitals were located a significant distance away from the city of Dakar, where MVA distribution is centralized. The first hospital was located at least a 4 hour drive away, while the second was located about 2 hours away, not including delays in traffic into Dakar, which in my experience during fieldwork were practically a given. Personnel often picked up new MVA equipment in an ad hoc fashion during professional and personal trips to Dakar. Such logistical constraints presented a serious challenge to regularly replacing MVA material, thereby leading to the possibility of overuse.

In sum, the politics of MVA practice at the level of the health facility do not always align with institutional discourse on MVA. Especially with respect to the first and second hospitals, the very system in place for the national distribution of MVA undermines the underlying logic of securing technology promoted by this discourse. Given the difficulties involved in obtaining new MVA material, one syringe is in circulation at a time at these facilities. To ensure access to the technology by multiple shifts of midwives, MVA material is stored in less secure conditions than those called for by this discourse. This system also appears to contribute to the overuse of
technology, which in turn contradicts PAC ideology that calls for ensuring access to quality care. While the restriction of MVA services to weekdays at the third facility reflected the logic of securing technology, the daily management of MVA technology and infrastructure by a paramedical practitioner does not. MVA practices, therefore, reflect the strategies undertaken by medical providers to navigate not only the constraints imposed by the supply system but also broader constraints of reproductive health care provision in a context where health facilities are frequently under resourced and under staffed.

*The curious case of electric vacuum aspiration (EVA) at Hospital 1*

The first hospital offers a particularly useful example of how medical providers negotiate the contradiction between the Ministry’s promotion of MVA as the preferred PAC technology and the restrictive system in place to distribute this technology. During my second week of observation at this hospital, I was granted permission to observe the MVA room. By this time, I had already reviewed some PAC registers and noted that MVA was used frequently as a method of uterine evacuation. Medical providers spoke about MVA during informal conversations regarding their PAC activities.

The PAC room offered further evidence of the presence of MVA at the hospital. I observed six large posters on the wall with images of MVA syringes and cannulae. Upon closer inspection, I saw that Ipas had published many of the posters between 1998 and 2007. In addition to displaying various sizes of syringes and cannulae, some of the posters included testimonials from health professionals regarding their experience with Ipas material. For example, a poster printed in 2007 shared the following thoughts, translated into French, from an obstetrician at Stanford University: “When you purchase Ipas products, you’re not just purchasing any products. You’re also investing in the organization’s 30 years of experience in
assistance, training, programs and services for clients.” The poster included several bullet points listing the advantages of Ipas MVA kits, such as a 98% efficiency rate, portability, versatility, and affordability. Two posters listed the procedures of uterine evacuation using the Ipas MVA kit.

I was therefore quite surprised to learn that midwives were in fact using *electric* vacuum aspiration (EVA) rather than MVA to practice uterine evacuation! Instead of using the Ipas syringe, they attached the Ipas cannulae to an electric aspirator that was also used in the delivery room to assist neonates with breathing problems. Yet, they systematically referred to this practice as MVA in conversation and also recorded the procedure as MVA in the PAC register. The data on MVA in Figure 4, therefore, may reflect EVA as well as MVA procedures.

When asked to explain why they used EVA, providers generally offered the same response: it was more effective than MVA. With EVA, both uterine evacuation and sterilization of cannulae required less time than MVA. The head physician and the head midwife indicated although MVA is recommended for settings with unreliable electricity, the methods are essentially the same. Indeed, the Ministry of Health’s norms and protocols for PAC include EVA as a method of uterine evacuation, along with MVA, digital curettage and D&C (DSR 2007).

Providers explained that as a regional hospital, the volume of PAC patients referred to them by other facilities increased their PAC caseload. EVA permitted more rapid and effective treatment of multiple patients given the organization of the maternity ward as well as difficulties in obtaining new MVA equipment:

This hospital gets all the cases in the region. It would be impossible to treat all those cases with just one MVA kit. Every time that you use it you have to decontaminate before reusing it. You couldn’t do more than one a day. But we have several cases each
day, so we use EVA with the cannulae. It’s more practical. There are problems with the MVA kit (Midwife).

I don’t think there’s a big difference between MVA and EVA. EVA allows us to save time, because we don’t have a person that’s solely responsible for cleaning and sterilizing the material (Physician).

Another reason for the use of EVA included staff training. Both the head midwife and the physician indicated that most of the midwives had not been formally trained in MVA. Instead, they were trained in digital curettage in school and had received on-site training in EVA at the hospital. Among the midwives I interviewed, only three out of eight had received formal MVA training at a seminar.

Given these circumstances, there was a strong rationale for using EVA rather than MVA. What is less clear, however, is why providers at this hospital continued to refer to this method as MVA. Providers did not appear to think that referring to EVA as MVA was a significant problem. Several suggested that the misnomer was used out of habit. The head midwife insisted that since MVA and EVA are essentially the same, the notation was not important. It is also worth noting that while the Ministry of Health collects data on the total number of abortions treated at facilities, it only requires facilities, districts and regions to report the number of cases treated with MVA rather than any other method.

I argue that this slippage between EVA and MVA exists precisely because of the tension between the Ministry’s promotion of MVA as the preferred PAC technology and its restrictive, centralized MVA supply system. The distance between the first hospital and the MVA supply center constrained the ability of health personnel to replace MVA syringes in a timely fashion. In order to provide quality care to PAC patients, providers used an equivalent method of uterine evacuation that was better suited to the particular circumstances of the maternity ward, including patient caseload, technological competence of personnel and division of labor.
To prevent the misuse of MVA for illegal abortion, the Ministry developed a highly centralized supply system that restricted access to this technology. Since the very introduction of PAC, however, the Ministry and its partner NGOs have strongly promoted MVA as the method of choice through operations research, training, supervision and even donation of MVA equipment. In other words, in Senegal, PAC and MVA are nearly inseparable. I do not mean that PAC and MVA are interchangeable. Providers, Ministry of Health officials and NGO personnel differentiated clearly between PAC as a set of services for treating abortion complications, and MVA, the technology of choice for uterine evacuation. Nevertheless, MVA is often understood as an integral part of PAC. A district level official involved in the earliest PAC operations research in Senegal illustrates the close relationship between MVA and PAC:

PAC is a package: it’s MVA, counseling, family planning and the community aspect, these are the five elements….And if the strategy is well applied, it goes without saying that there will be a health impact. Because a woman who has had an abortion and who does not want to become pregnant will have the occasion to get family planning (MOH official).

This perception is reinforced by the Ministry’s data collection tools, which prioritize data on patients treated with MVA above all other methods. Furthermore, the Ministry of Health has not promoted just any MVA kit. Rather, the Ministry and its NGO partners have promoted the MVA kit manufactured by Ipas. Even before Ipas launched a formal program in Senegal in 2008, the organization donated MVA kits to the Ministry that were subsequently distributed to health facilities with newly trained midwives. Currently, Ipas is the lone supplier of the MVA kits purchased by CEFOREP. At all three facilities, I observed posters or pamphlets related to the Ipas MVA kit. Given the long-standing presence of MVA in Senegal, it is perhaps not so surprising after all that providers at the third hospital referred to electric aspiration as MVA.
To strengthen my argument that this misnomer arises in part due to the distance of the first hospital from the MVA supply center, I offer a comparison of PAC practices between the first and third hospitals. Both were tertiary level hospitals. Both had designated a separate room for MVA. In both hospitals, providers continued to use digital curettage in spite of the availability of aspiration procedures. The majority of midwives in both hospitals were not formally trained in MVA. At the first hospital, three out of eight interviewed midwives had been formally trained. At the third hospital, only three out of seven interviewed midwives had received formal MVA training. In many ways, these two facilities were quite similar in the provision of PAC. What, then, accounts for the use of EVA rather than MVA in the first hospital?

Providers at the first hospital explained that a high caseload of PAC patients fostered the need for a faster method of uterine evacuation. Yet, if we examine the number of admissions for abortion at both hospitals (see Figure 8), the third hospital treated more than double the abortions than the first hospital between 2006 and 2009. As the third hospital serves a greater catchment population than the first hospital, the number of all admissions to the maternity ward (delivery and abortion) is significantly greater than at the first hospital. If a high PAC caseload alone accounted for the use of EVA, then we might expect providers at the third hospital to use this method as well. Although EVA was practiced at the third hospital, this method accounted for very little of uterine evacuation at the third hospital (see Figure 6).
This comparison suggests it is the proximity of each facility to the MVA supply center in the capital city of Dakar that significantly shapes the practice of uterine evacuation. Its location in the same region as the MVA supply center facilitates the third hospital’s access to this technology. In contrast, the first hospital is located at least a four hour drive away from this center in one of the northern-most regions of the country. To adapt to this constraint while continuing to offer quality aspiration services, the first hospital used Ipas cannulae with an electric aspirator rather than with an Ipas syringe. The tendency to refer to EVA as MVA reflects the ubiquity of MVA in institutional discourse and practice related to PAC. This example offers a powerful reminder that in spite of MVA being the preferred technology for PAC, it is not always the most accessible technology precisely because of the Ministry’s desire to prevent the misuse of the technology for illegal abortion.

Conclusion
The Senegalese Ministry of Health has championed MVA as the technology of choice for post-abortion care, but anxieties about the capacity of the device to induce abortion have restrained its integration into routine gynecological practice. Understanding this contradiction between discourse and practice requires locating the daily practice of MVA in Senegalese hospitals within national and global policies and discourses regarding abortion, population and reproduction. Population control advocates understood MVA as the right tool for safe abortion in low-resource settings. A shift in global population policy to the more woman-centered approach of reproductive health deemed MVA the right tool for treating abortion complications. In Senegal, MVA is incompatible with the national prohibition on induced abortion as well as US development funding policy for reproductive health. Similar to its earlier history in the global North, the politics of MVA in Senegal tell stories of technological adaptation, innovation, and at times, direct contestation of formal guidelines for MVA utilization at the level of daily practice.

MVA restrictions within the national supply system lead to practices at the level of the hospital that reproduce inequalities in access to quality health care. The persistence of digital curettage at all three hospitals in spite of the availability of either EVA or MVA illustrates one such inequality. Operations research found that digital curettage was often performed without anesthesia and carried a greater risk of infection (Dieng 2008; PopCouncil 2007). More than a decade following the introduction of MVA, utilization of this method, disparaged by a Senegalese obstetrician-gynecologist as ‘archaic,’ ranged between 13 and 37% of PAC cases at three hospitals.

At the second hospital, the informal circulation policy of the head gynecologist may have contributed to reduced quality of care in MVA treatment. This suggests that women in rural
zones, where health facilities are unable to replace MVA in a timely fashion, may be treated with overused MVA syringes. At the third hospital, personnel and scheduling restrictions around MVA essentially routinized the utilization of methods such as D&C and digital curettage. D&C holds a greater risk of perforation and is significantly more expensive than MVA. Digital curettage may be cheaper than either D&C or MVA, but holds a greater risk of infection.

Providers at the first hospital replaced MVA with EVA in order to ensure the availability of quality aspiration services. However, they referred to EVA as MVA in daily practice as well as in PAC medical records. While the MOH recognizes EVA as an appropriate method for uterine evacuation, the two methods are clearly separated in its norms and protocols for PAC. These MVA practices raise questions about the accuracy of MVA prevalence in national health information systems. If other hospitals have adopted similar practices to navigate the highly centralized MVA distribution system, then MVA utilization may be over-reported. The Ministry’s practice of collecting data only on MVA and not other methods of uterine evacuation may further obscure challenges experienced by health facilities in obtaining and appropriately using MVA.

The management of MVA offers insight into the institutional relationships between medicine, abortion and gender in Senegal. The isolation of MVA from regular channels for medical supplies reinforces the exclusion of abortion-related care from legitimate medical practice. The prioritization of MVA’s security over women’s access to this technology reflects the subordination of women’s health needs in public health planning. The organization of the MVA supply system reproduces gendered hierarchies in health care by limiting women’s access to safe, high quality, affordable and effective care.
Treating abortion complications places medical professionals in Senegal in a precarious professional position. Post-abortion care (PAC) permits medical providers to treat complications of both induced and spontaneous abortion in a context where the state penalizes induced abortion and the severity of the law leads many providers to believe they are obligated to report such cases to the police. My research suggests that most cases of suspected induced abortion treated at hospitals are neither documented nor reported to the police. In this chapter, I explain this seeming contradiction using the analytical tool of boundary work. Medical providers maintain jurisdiction over a highly criminalized procedure through the deployment of professional boundary work to contain induced abortion within the hospital and circumvent police involvement. I present three examples of boundary work strategies—discursive, clinical and written—observed during fieldwork at three state hospitals in Senegal.

When practicing PAC, Senegalese medical professionals navigate not only between medicine and law, but also between local and global abortion politics. The legal context of abortion, and in particular the ambiguity surrounding what constitutes complicity in procuring abortion, presents an unavoidable ‘problem’ for medical providers who treat abortion complications. Drawing on highly gendered and classed expectations of gender, sexuality and motherhood, providers actively seek to differentiate between spontaneous and induced abortion to preempt suspicion of complicity by criminal justice authorities. In direct contradiction to the ideology of the global PAC model, these strategies reinforce the social and professional stigma of abortion by subjecting women suspected of induced abortion to moral surveillance as well as discriminatory treatment. There is a profound disconnect between the ideological underpinnings
of PAC and the social and legal reality in which providers practice the services related to this intervention. This chapter offers insight into the provision of abortion care in a setting where induced abortion is criminalized. I situate these practices within the broader social, legal and professional context of abortion in Senegal. The experiences of health providers and the women they treat raise important questions about the effectiveness of PAC in addressing the social and public health problem of unsafe abortion in Senegal.

The clinical and social context of service delivery in 3 hospitals

The boundary work required to maintain professional jurisdiction over abortion is best understood within the broader context of PAC service delivery in hospitals. A review of hospital records at all three sites revealed that treating complications of abortion is a significant component of providers’ work in the maternity ward. Figure 9 shows that between 2006 and 2010, abortion as a proportion of patient admission to the maternity ward ranged between 7 and 24% at the 3 hospitals. Figure 10 shows that in all three hospitals, the number of abortions treated fluctuated throughout the year, with the highest number of cases presenting during the hottest months of the year and tapering off during the cooler season at the end of the year. The third hospital, located in a densely populated district in the region of Dakar, treated more abortions than the other two hospitals.

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15 The decline in abortion admissions between 2007 and 2009 at the first hospital was explained by hospital administrators as a problem related to inadequate data collection.
Figure 9: Abortion as a proportion of admission to the maternity ward in 3 hospitals, 2006-2010

Figure 10: Abortions treated in 3 hospitals over 24 months, 2009-2010
At all three hospitals, PAC treatment was available around the clock. Patients with abortion complications were first admitted to the delivery room and then triaged according to their clinical state. Although the PAC model promotes separate treatment rooms for PAC patients (Billings and Benson 2005; Corbett and Turner 2003; Curtis 2007; Johnson et al. 2002; Wood, Ottolenghi and Marin 2007), in all three hospitals providers questioned patients and performed digital curettage, in the delivery room. In fact, midwives frequently treated PAC and delivery patients simultaneously in the delivery room. Providers readily acknowledged the gaps between the PAC model and the infrastructural reality of their working environments. Delivery rooms in the three study hospitals were often noisy, crowded spaces offering little privacy for birthing women or women with abortion complications. Although only clinical staff members were permitted in the delivery room, male security guards, porters and janitors frequently entered the room as women were being examined or delivering their babies. When there were not enough beds for patients in the delivery room, providers instructed women to double up on beds as they waited for treatment. Providers indicated that the delivery room offered PAC patients insufficient privacy during treatment, questioning and family planning counseling. A physician at the first hospital site underlined the need for privacy, especially in cases of suspected induced abortion, as follows:

PAC patients need a certain measure of confidentiality, which we don’t have here. All patients are together in the delivery room. Especially for cases of induced abortion. Anyone can find you here in the delivery room, even your neighbor. What if you’re single? These are special cases and they need privacy. We’d like to have separate rooms for more privacy. But you’ve seen the common room…you see how we keep the women crammed together like sheep. But that’s how it is in Africa (Physician).

While providers acknowledged the lack of privacy for PAC patients, they did not indicate that this inhibited their own ability to simultaneously perform PAC and delivery services. Instead,
many understood the lack of separate PAC treatment rooms as yet another item on a long list of resource constraints within their professional environments.

Another evidence-based best practice promoted by the PAC model is the integration of family planning services with uterine evacuation (Billings and Benson 2005; Curtis 2007; Development 2004; Johnson et al. 2002; PAC-Consortium 1995; PopCouncil 1999; Wood, Ottolenghi and Marin 2007). Midwives regularly conducted family planning counseling in conjunction with treatment at the second hospital. At the first and third hospitals, providers gave women appointments for family planning counseling a week after treatment. A review of PAC and family planning records revealed that women frequently did not return for these appointments. Providers identified a number of infrastructural barriers to integrating family planning in PAC services such as the absence of contraceptive methods in the treatment room and a high patient caseload. Many providers also suggested that the larger social context, including religious opposition to family planning, gender inequality and cultural expectations around childbearing, complicated efforts to conduct family planning services. One midwife at a health post in the region of Thiès described these challenges as follows:

When they don’t leave with a method it’s because there are certain barriers. In Senegal, in general, women are not autonomous. They always need the husband’s consent before they can do certain things…Sometimes the husband is not there so we are scared to give the woman a method because we don’t know if the husband agrees or not. The husband can come to ask why you gave his wife contraception without his consent. We had a case like that were we gave a woman contraception and the husband came and told us he would divorce the woman (Midwife).

In sum, PAC is an important part of service delivery in public hospitals in Senegal. Yet, significant gaps persist between the PAC model’s framework of service delivery and the reality of service delivery in Senegal’s resource-poor health system. Constraints related to infrastructure, service organization and technology shape how medical providers practice PAC as
well as how women patients experience treatment. Furthermore, medical professionals negotiate the provision of PAC services within a broader social context where normative gender expectations regarding fertility and motherhood and the criminalization of induced abortion stand in direct contradiction to the PAC model of care which includes family planning and non-discriminatory treatment of all abortion complications. The strategies devised by health providers to manage abortion complications are best understood within the clinical and social context of service delivery in public hospitals.

Attitudes and experiences regarding induced abortion

Providers’ personal attitudes regarding abortion also constitute the social context of PAC service delivery in Senegal, where association with abortion is deeply discrediting for women and health professionals. In general, providers expressed similar views to one another regarding the practice of induced abortion. They indicated that both medical professionals and lay individuals without medical training practiced clandestine abortion. Providers used the pejorative term ‘avorteurs’ (abortionists) to describe all abortion providers irrespective of their professional training. Similar to the specter of the greedy abortionist in the US (Joffe 1996; Pelletreau 2003; Reagan 1998), ‘avorteurs’ practiced abortion simply for a profit. For many providers, non-therapeutic induced abortion constituted bad medicine since many understood abortion as immoral on religious grounds. Providers almost unanimously declared that both Islam and Christianity forbid abortion under any circumstance. Only two providers, a midwife and a physician, referred to alternative interpretations of Islam that permit abortion until the moment the fetus gains a soul, which ranges between 40 and 120 days following conception (Bowen 1997; Hessini 2007; Sachedine 1990).
Almost all providers described clandestine induced abortion as an inherently dangerous procedure even when performed by a medical professional. Although providers suggested that unskilled providers use less sophisticated abortive techniques such as roots or chemical ‘concoctions’ that lead to severe complications, they indicated that even abortions performed by medical providers could result in complications requiring medical attention. Several providers situated PAC within a circuit of care between ‘avorteurs’ who initiate abortions in private and medical providers such as themselves who complete these abortions in state medical facilities. The only safe abortions were ‘medicalized’ abortions performed by medical professionals in hospitals. Yet, the majority of providers did not support induced abortion for non-therapeutic purposes, including cases of rape or incest.

This tension between providers’ approval of ‘medicalized’ abortion and their support of the country’s restrictive law may be explained by their identity as the ‘front-line’ of abortion care in a context where abortion stigma and restrictive laws lead women to resort to unsafe abortion. Almost all of the providers could recall treating or observing severe abortion complications. Medicalized abortion represented the only safe alternative to clandestine abortion in this context. At the same time, as medical providers, their disdain for clandestine abortion represented a professional response to incursions on medical jurisdiction over abortion by ‘charlatans’ without medical training. While they did not approve of abortion, they supported therapeutic, medicalized abortion under restricted circumstances by medical professionals.

Providers unanimously echoed the broader social disapproval of abortion when describing women who seek abortion. The quintessential abortion seeker was a young, single woman with multiple sexual partners. Women who sought induced abortion were considered ‘sexually debauched’ and therefore in violation of the norms of appropriate sexuality. In spite of
the severe legal and social sanctions against induced abortion for both women and providers, many medical professionals indicated that women frequently approached them with requests for abortion. Some went as far as to say that they received such requests nearly every day. Women were aware that some professionals offered such services and therefore inquired discreetly at health facilities. I observed such a request during an interview with a midwife at the third hospital when a woman approached the midwife and told her she was pregnant but did not want to have the child. She asked the midwife if she could ‘help her.’ The midwife told her that she was not permitted by law to perform induced abortion but could provide her with prenatal care and family planning services following delivery. Some providers indicated that they threatened such women with denunciation to the police while others said they discouraged women from seeking abortion by explaining the risks of clandestine and unsafe procedures performed by ‘avorteurs.’

All providers were aware that the law forbade non-therapeutic abortion and most supported the law. Only a third (13/36) of providers expressed that the law was too severe and that abortion should be permitted under various circumstances (see Table 12). Not a single provider indicated that abortion should be available upon request.

**Table 12: Providers indicating that abortion should be permitted under certain circumstances**

<table>
<thead>
<tr>
<th>Region of Study</th>
<th>Number and type of provider</th>
<th>Permissible circumstances for abortion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Physician (N=1) Midwives (N=3)</td>
<td>Rape; incest</td>
</tr>
<tr>
<td>2</td>
<td>Physicians (N=2) Midwives (N=2) Nurses (N=2)</td>
<td>Rape; incest, fetal malformation; contraceptive failure; prevention of unsafe abortion</td>
</tr>
<tr>
<td>3</td>
<td>Physician (N=1) Midwives (N=2)</td>
<td>Rape; incest</td>
</tr>
</tbody>
</table>
Only about a third (13/36) of the sample of health providers indicated that some medical professionals would practice abortion if the law were liberalized. However, they urged the importance of placing restrictions on the legal practice of abortion such as limiting the procedure to physicians and establishing gestational limits. Many providers expressed concerns about the exploitation of legal reform by medical professionals seeking financial gain and women seeking to terminate pregnancies that did not meet legal requirements for abortion. Only 3 out of 36 providers, including two gynecologists and a midwife, explicitly indicated that they themselves would practice abortion if the law were liberalized.

Although the majority of physicians expressed conservative attitudes towards abortion, more experienced doctors voiced the need to liberalize the law under certain circumstances. The four doctors (see Table 12) who said that the law needed to be revised had all been practicing for several years. In contrast, younger physicians who had recently completed or were currently completing their training expressed more conservative views. The experiential factor may explain the difference in attitudes between doctors. Doctors who have been practicing medicine for several years are more likely to have observed firsthand severe complications of abortion and are therefore more likely to understand the link between restrictive laws and unsafe abortion. Furthermore, the physicians who expressed slightly more liberal attitudes towards abortion also occupied senior gynecologist positions at their places of work. As senior gynecologists, they are responsible for completing medical certificates for law enforcement authorities when confronted with a confirmed induced abortion. Given their experience with police involvement in abortion cases, these providers may be more likely to express more liberal views on abortion than providers who are not implicated in the legal aspects of abortion. A senior gynecologist at the
third hospital expressed his discomfort with reporting cases of induced abortion having seen firsthand the conditions women face in prisons in Senegal:

That’s why we do the medical certificate, when there’s absolutely no doubt. I won’t take risks. I’m not obliged to send if there’s suspicion but no evidence, but if there’s evidence I will send. Of course I’m conscious of the consequences of these actions. Have you ever seen the inside of a prison? When you see the conditions there you’ll understand why it’s hard to write and send these reports, because you know what the woman will experience, and it’s very difficult. You understand the human aspect of it. But I have to protect myself as well (Physician).

A professional conundrum: notifying the police

Although the law punishes complicity in procuring abortion, medical providers who treat complications of induced abortion are not required to notify law enforcement officials. A reproductive health law passed in 2005 acknowledges PAC as part of the continuum of reproductive health services available to women. In addition, Article 7 of the code of medical ethics requires providers to maintain strict patient confidentiality. However, the Ministry of Health offers no formal guidelines on handling confirmed or suspected cases of induced abortion. Key informants within the criminal justice system indicated that the police would indeed pursue medical providers who did not report such cases as accomplices in illegal abortion. I did not find evidence in the legal archives or in the press that providers were arrested or prosecuted for improper recording of abortion or failure to report abortion to the police. Nevertheless, it should not be surprising that some health professionals may feel obligated to report. A review of the press found that providers do indeed report suspected or confirmed cases of illegal abortion. Over a span of just two months, between September and October 2011, the press reported three cases brought to the attention of the police by medical providers (Diedhiou 2011a; Diedhiou 2011b; L'Observateur 2011).
Even if providers do not practice induced abortion, treating abortion complications brings them uncomfortably within reach of the criminal justice system. Many providers expressed concerns about their involvement in the legal aspects of abortion. They are expected to cooperate with investigations of illegal abortion at the hospital. Providers may be called to serve as witnesses in cases prosecuted by the state. Encounters with the legal system were understood as a significant waste of time and financial resources. During my fieldwork at the second hospital, the head midwife revealed that she was currently testifying in a case of illegal abortion. She described her role as a witness as a major nuisance. Not only did she miss work, but she also paid out of pocket for transportation costs to the court in the regional capital, located at least a thirty-minute drive away.

Providers varied in their perception of the obligation to report induced abortion to the police. Only providers at the third hospital site indicated that the facility systematically alerted the police in such cases. Almost all providers at this hospital (11/13) indicated that failure to notify the police could lead to suspicion that they themselves were complicit in an illegal act. However, providers at this hospital insisted that they alerted the police only with concrete evidence of induced abortion. At all three facilities, providers described a chain of responsibility with respect to activating the legal process. Staff in the delivery ward brought suspect cases to the attention of the senior gynecologist, who made the final decision regarding the notification of the police. Providers interviewed in health posts or health centers indicated that they referred suspect cases to district and regional hospitals.

At the first and second hospitals, providers indicated that they were not obligated to notify police, but they complied with police requisitions and requests for information regarding suspected cases of illegal abortion. Several providers indicated that while personnel at the
hospital may not denounce the woman, someone outside the hospital, or health providers at other health facilities, could notify the police. Although the first and second hospitals claimed not to alert the police, a case from the first hospital suggests that several protocols exist with regard to the legal management of suspect cases. Upon identifying in the PAC register a case of induced abortion recorded in December 2010, (just two months before I began my fieldwork at this site), I asked a midwife to explain the circumstances of the case. The midwife indicated that a nurse at the health clinic where the woman first sought treatment for complications had reported her to the police for induced abortion. The police accompanied the woman to the hospital for treatment and demanded a medical report that confirmed the induced abortion. The midwife disagreed with the nurse’s decision to involve the police and wished instead that he had simply referred her directly to the hospital for treatment.

A female janitor at the same hospital offered a different account of this event. She explained that the hospital indeed denounced women to the police. According to her, the hospital had alerted the police in this particular case. These differing accounts suggest not only that several protocols are in place with regard to the notification of police, but also that knowledge of suspected abortion cases is not restricted to clinical staff in the delivery room. In such cases, women’s confidentiality may be significantly compromised.

Providers’ abortion attitudes and practices are best understood when situated within the social and legal context of abortion in Senegal. In spite of the stigma surrounding abortion, women regularly request abortion services from health professionals at state hospitals. Such requests reinforce health professionals’ claims that both medical providers and unskilled laypeople offer clandestine abortion. They also highlight the discursive and material presence of induced abortion within the hospital in spite of its illegality. Although medical providers
understand unsafe abortion as a major public health problem, most approved of the current abortion law and less than half believed that legal abortion should be permitted for cases of rape and incest. Very few indicated that they would practice legal abortion if the law were liberalized. My research suggests that the very treatment of abortion complications subjects medical providers to abortion stigma and legal scrutiny. Although only one hospital site systematically reported induced abortion to the police, providers at all sites expressed discomfort with involvement in the legal aspects of such cases.

Boundary work: navigating between medicine and law

In this section, I present discursive, clinical and written boundary work strategies deployed by medical providers to maintain control over the treatment of abortion complications. These strategies ultimately determine whether women will be released or referred to the police following treatment. My research suggests that these strategies lead to the release rather than referral to police of most women suspected of illegal induced abortion.

Discursive strategies: the imperative of treatment

Health providers articulated three primary forms of discursive authority over PAC. I refer to these strategies as ‘the treatment imperative discourse.’ First, they echoed the institutional discourse on PAC described in Chapter 5 by normalizing this service within reproductive health care. Second, they carefully distinguished their role in managing abortion complications from that of criminal justice authorities interested in pursuing illegal abortion. Third, they utilized a public health rationale to justify treatment irrespective of the origins of the abortion.
Medical providers located PAC within the continuum of professional maternal health care duties, no different from delivering babies or performing prenatal care:

I’m a midwife. I manage deliveries, post-operation, abortion and hospitalized patients (Midwife).

I do everything in the maternity ward—deliveries, PAC, prenatal and postnatal consultation, family planning—and I monitor patients (Midwife).

They expressed positive views about PAC as a public health intervention that saves women’s lives:

In general, SAA has made services more accessible. Before, it was medical—only doctors did it. But there aren’t enough doctors, there are more midwives. With midwives doing it, it’s more accessible financially and geographically. Before it was a problem—women had to be referred all the way to the hospital in Thiès. Now, women can come here for treatment and leave 30 minutes later (Midwife).

They indicated that the social and legal taboos of abortion did not inhibit their ability to treat complications of induced abortion:

SS: Does the law pose problems for health professionals who provide PAC? Are they hesitant or reluctant to perform PAC because of the law on abortion?

Respondent: No, it’s their job to manage abortion. They’re not reluctant. (Midwife)

Abortion is very much frowned upon by society. They see abortion in an even poorer light than we do because we are often confronted with these cases, to the extent that it’s been trivialized for us (Physician).

Providers also emphasized their role as technical experts in managing abortion complications within the context of Senegal’s abortion law. They insisted that they offered quality medical treatment to PAC patients irrespective of whether the abortion was induced or spontaneous. Their primary duty was to provide treatment and respect the rights and privacy of all patients. They drew a sharp distinction between the role of the medical professional and the law enforcement official in managing abortion:
We respect the rights of the client. Even if she had an induced abortion, she has the right
to care. We are not the police...We don’t have the right to say that it’s an induced
abortion if the patient doesn’t admit it...but if it’s induced it’s not my problem. The
obligation of a midwife is to care for the patient. We have to maintain the patient’s
privacy (Midwife).

I don’t make a distinction or discriminate between these patients. I ask myself what
pushed her to have an abortion, and I try to understand. I have pity for her rather than
rejecting her. It’s possible that she may try to do it again, or she may be tempted to do it
again. You need to talk to her, give her medical treatment. But there are people here
who express disgust towards these patients (Midwife).

Not only did reporting abortion to the police fall beyond the scope of their professional
duties, but it was also stressful and a waste of precious time:

That brings too many problems. The police will call you, asking how do you know it’s
an induced abortion? Especially if the case is at the regional tribunal, they’ll call you,
there will be lots of back and forth, and that will influence your work (Midwife).

It’s a bit tiring, because you want to concentrate on your work. We have a lot of
responsibility. When you have to care for a patient, and go to the police to denounce
someone...you waste time interrogating a patient about her social life. It’s on the
margins of medicine to have to do this kind of work (Physician).

Providers articulated a strong public health rationale in justifying the treatment of
abortion complications without notifying criminal justice authorities. They indicated that
reporting induced abortion would discourage women from seeking medical care. Maintaining
women’s trust was key to providing necessary medical care:

The role of the doctor is to treat. We have to do a survey to determine the etiology to
know how to manage the case, but our role is not to inform the police. I’m not in favor of
denouncing women because it will be a restraint. Because if you come, you know you
had an induced abortion, and you know that we will inform the police, tomorrow
someone in the same situation will not come (to the hospital) (Physician).

In sum, providers’ discourse on PAC revolved primarily around the imperative of
treatment. In spite of the social and legal context of abortion, providers claimed they did not
differentiate between treating abortion complications and their other responsibilities. This
discourse limited providers’ responsibilities to medical care rather than legal investigation.
Providers believed that maintaining patient confidentiality encouraged women to seek treatment for abortion complications. Through its explicit alignment with the PAC model, which calls for no discrimination in treatment between complications of induced and spontaneous abortion, the treatment imperative discourse reinforces the notion that PAC is a strictly medical intervention and strengthens providers’ jurisdictional claims over what happens within the hospital. Although this strategy discursively constructs providers’ work as medical, the following review of clinical boundary work strategies involved in managing abortion complications suggests that their work draws heavily on social aspects of abortion.

Clinical Strategies: navigating between suspicion and proof

What happened when women arrived at a state hospital with complications of abortion? Medical providers triaged women according to their clinical state upon arrival. Women in a state of shock were treated immediately. If providers determined that a patient was stable, they conducted an interview to establish a standard medical history. Known as ‘the interrogation,’ this line of questioning sought physiological information such as the date of the last menstrual period and the duration and intensity of bleeding and pain. Providers asked a variety of socio-demographic questions, such as age, parity, profession and marital status. They conducted a clinical exam and an ultrasound to verify fetal viability. The patient was then treated, and if necessary, hospitalized. Providers noted the case in the PAC register after the completion of treatment.

If providers suspected induced abortion, they questioned the patient further, known as ‘pushing the interrogation’:

If we see complications we push the interrogation. If we suspect something, we push the interrogation in that direction…You have to interrogate them, push them to speak, in order to get certain information, otherwise they will not just admit it like that (Midwife).
We don’t let them leave. If they don’t tell us when they first come in, we wait until the next day and then we push the interrogation further (Midwife).

Although I did not observe treatment being withheld from women suspected of induced abortion at any of the hospitals, several providers suggested that they might threaten to withhold treatment unless the patient provided information about the abortion:

At first, they won’t admit it but eventually they will. We tell them if you want to be treated you have to tell us what happened (Midwife).

Women usually don’t want to admit it, but they (health providers) ask many questions in order to find out what happened. They may tell her they won’t treat her until she admits to what she did. When there’s pain, women will talk (Nurse).

Others suggested that women were retained at the hospital after treatment in case the police were notified of the case by the hospital or another party:

We keep the woman under observation for 72 hours…Someone could notify the police. Maybe someone knows she had an induced abortion and could notify the police. We don’t want to lose her. If no one comes, we let her go (Midwife).

We keep her here until the police come, if it’s an admitted or probable induced abortion. We tell each other, until the problem is resolved, we have to keep an eye on her, we can’t let her escape. She needs to be watched. We had a woman like that who had material in her uterus. You make a note of it in the patient file. When the head doctor sees the file he will contact the police. Sometimes these women escape. You come in on your next shift and they’re gone before anyone notices (Midwife).

If there was no suspicion of induced abortion, or if there was suspicion but not sufficient proof in the form of a verbal admission, the patient was released after recovering from treatment.

Over the course of my fieldwork at each hospital, providers often described a context of uncertainty in which they managed abortion complications. Only two out of 36 medical providers affirmed that they always know whether an abortion is induced or spontaneous. Providers indicated that due to the legal status of abortion, women rarely admitted to having an induced abortion:
In general, the women hide, they don’t admit (Midwife).

A lot of women here drink concoctions to induce abortion, made with traditional plants…and women rarely admit to taking them (Physician).

Sometimes the girls who know they had an induced abortion, when they come here, they don’t admit it. They know it’s punished by the law. So it’s difficult to know (Physician).

‘Pushing the interrogation’ was thus an important strategy deployed by providers, faced with patients they perceived as reluctant, to obtain information that might determine the type of abortion.

*Differentiating between induced and spontaneous abortion*

Although suspicion of induced abortion could emerge at any point during the management of a case, medical providers identified various indicators that could be used to differentiate between induced and spontaneous abortion. I have divided these indicators into three primary categories: patient demographics and behavior, physiological information, and verbal admission of induced abortion. Table 13 displays various indicators in each category as well the methods used to obtain the information.

**Table 13: Indicators used differentiate between induced and spontaneous abortion**

<table>
<thead>
<tr>
<th>Category of Information</th>
<th>Indicators</th>
<th>Method of obtaining information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient demographics and behavior</td>
<td>Marital status, Age, Presence/absence of family members, Profession, Socio-economic status, Anxiety, Lack of cooperation, Time of arrival, Display of emotion regarding pregnancy</td>
<td>Interrogation, Observation</td>
</tr>
<tr>
<td>Physiological information</td>
<td>Hemorrhage, Infection, Objects in uterus or vagina, Cervical injury, Uterine perforation</td>
<td>Clinical exam, Ultrasound, Treatment</td>
</tr>
</tbody>
</table>
Verbal admission
Woman admits to having induced abortion
Interrogation
Retention at the hospital
Threats to withhold treatment

Providers nearly unanimously identified marital status as the main characteristic that elicited suspicion during the interrogation. Although widows and divorced women were also considered suspect, the following quote illustrates how providers were most likely to suspect young, never-married women of attempted abortion:

You can’t imagine that a married woman would have an induced abortion, even if the pregnancy is unwanted. There’s a lot of suspicion around single women. If it’s a single woman, rest assured that the interrogation is more intense…because we think it may be an induced abortion (Midwife).

Suspicion toward young, single women echoed broader social disapproval of abortion as a practice that violates gendered expectations regarding the proper place of sexuality and motherhood within marriage (Foley 2007). Some providers indicated that married women with abortion complications were not beyond suspicion of induced abortion:

Is she married? It’s common among single women. Even married women, we ask if the husband is there (Midwife).

We do see cases of induced abortion, though. Young girls, but also married women whose husbands are absent… It happens often. They seek abortion because they want to avoid divorce (Midwife).

Often it’s single women or people with husbands who are absent (Physician).

A married patient with an absent husband raised suspicion that she may have attempted to terminate an unwanted pregnancy from an extramarital liaison. Suspicion towards married women reflected moral anxieties raised by the increasing visibility of the unsupervised wives of transnational migrant men (Hannaford 2014). Similar anxieties around married women with absent husbands were observed in a study of unsafe abortion in Malawi, where men also migrate to neighboring countries to find work (Levandowsky et al. 2012).
Other patient characteristics included profession and socio-economic status. Students and women who demonstrated economic hardship, such as being unable to pay for medication, were likely to raise suspicion:

We ask the woman’s profession because often students will do anything to terminate an unwanted pregnancy (Midwife).

I once treated a student, and it really surprised me. She was a master’s student. When I finished doing the aspiration, I said to myself, that girl, shouldn’t I have interrogated her a bit more? She’s a master’s student, and she’s pregnant (Physician).

Providers also suspected women who became anxious, incoherent or uncooperative during treatment, as well as those who arrived at the hospital without family members:

Those with complications of spontaneous abortion are more cooperative than the others. They are more at ease. They have nothing to hide. But the others, they are more difficult to manage. Because they don’t always admit that it’s an induced abortion. They know it’s illegal (Midwife).

They give you a story that’s doesn’t make sense. They give different answers to the same question (Midwife).

If it’s a case of spontaneous abortion, it’s not the same. The woman isn’t as stressed, and she’s accompanied by the mother in law or by the husband. Women who’ve had induced abortions usually come alone or with the boyfriend (Nurse).

For some providers, the patient’s time of arrival offered insight into the origins of the abortion. Providers suspected women who arrived late at night after the completion of regular consultation hours when the hospital was less crowded. Nighttime arrival was perceived as an attempt to seek discretion during treatment. At the first hospital, I observed a physician instruct a midwife during an 8 am staff meeting to re-interrogate a young woman of 18 who had arrived earlier that morning (at 1 am) with complications of abortion. He also instructed the midwife to remove the patient from the recovery room and place her in a different room in the maternity ward. The physician inquired after the time of arrival for all other abortion cases discussed during the meeting.
Providers also gauged patients’ emotional display regarding the *wantedness* of the pregnancy. Patients with abortion complications who expressed sadness about their condition were assumed to have experienced miscarriage of a desired pregnancy. At the third hospital, I observed a midwife at the third hospital interrogating a young, single woman who reported having a spontaneous abortion. When asked why she identified the case as spontaneous, the midwife indicated that she ‘felt’ that the patient was telling the truth due to the distress and sadness she displayed with respect to losing her pregnancy. A physician at the same hospital described a case where a young, unmarried student presented with complications of abortion that she described as spontaneous. The physician ultimately determined that it was indeed a spontaneous abortion because the patient not only identified the man who had impregnated her, but also displayed what he believed was authentic sadness over the ‘loss’ of pregnancy.

The calculus of evidence in the differentiation between induced and spontaneous abortion automatically positioned miscarriage as the default patient status. Behavioral indicators of suspicion rested on providers’ gendered expectations of pregnancy, motherhood and even *patienthood*. Normal women patients were married and lived with their husbands. They arrived at the hospital during daytime hours and were accompanied by family members. They were cooperative and could usually afford treatment and medication. They displayed sadness and regret about pregnancy loss due to miscarriage. Women who did not conform to these expectations were likely to raise suspicion of induced abortion and prompt further interrogation.

The next category of information that aroused suspicion of induced abortion includes physiological indicators observed during the clinical exam. During the clinical exam, providers inserted a speculum into the vagina to view the cervix. They assessed cervical dilation and determined the most appropriate form of uterine evacuation. Indicators of induced abortion
observed during the exam included severe hemorrhage or infection, cervical injury, foreign objects in the body, or uterine perforation:

There is obvious proof, when the woman comes here, with bits of gloves, with cannulae sometimes. You see things and you know it’s induced. Or the woman comes with an infection…These are the signs that prove it’s induced even though the interrogation helps clarify things. Once a woman came here with plastic in the uterus…you know that there was some sort of manipulation (Physician).

There are clinical signs, from the clinical exam, that make you strongly consider that she had an induced abortion. If you insist in the interrogation, you always end up with proof. For example, during the exam, with the speculum, or if you introduce a finger to the vagina, you see that the cervix is torn, or there are injuries on the cervix. It makes you think that something happened. Or if the woman is in a lot of pain, she’s bleeding and the cervix is not dilating, that’s often proof of induced abortion (Midwife).

Providers used the ultrasound to evaluate the status of the fetus. Only if the fetus was no longer viable did providers proceed with uterine evacuation.16 They also used this technology to assess the size, shape and contents of the uterus. Such information could be used to verify patient accounts of the last menstrual period, which was used to calculate gestational age, an indicator in the PAC register. Incoherence between the results of the ultrasound and the patient’s account of the last menstrual period or gestational length could result in suspicion of induced abortion:

Sometimes the age of the pregnancy is difficult because if it’s an induced abortion, she will not try to help you. She will tell you, ‘I wasn’t pregnant.’ So it’s up to you to investigate. If the pregnancy is already gone, you have no clues, you have to estimate because you’re never sure about what they tell you. They will never tell you what they did, or they’ll tell you ‘I didn’t see my period in two months.’ Meanwhile, the pregnancy is four months if you see the ultrasound. The last time, she told me she didn’t even know she was pregnant, or she’ll tell you she had her period, but the ultrasound shows a fetus from a pregnancy (Midwife).

While gestational age could be used to verify patient stories, providers did not systematically identify advanced gestational age among physiological indicators of suspicion.

16 If the woman arrived in a state of emergency, providers treated her immediately without conducting the ultrasound.
Gestational age therefore does not appear in Table 13. However, I include gestational age in the section below that describes providers’ record-keeping strategies. Advanced gestational age may increase the likelihood of complications of unsafe induced abortion (Dixon-Mueller 1993). Hospital-based studies show that up to 20% of all pregnancies will end in spontaneous abortion or miscarriage. Most miscarriage occurs before twelve weeks of gestation and less than 4% occurs during the second trimester of pregnancy (Curtis 2007; Farquharson, Jauniaux and Exalto 2005; Kalumbi, Farquharson and Quenby 2005). In developing countries, adolescents and low-income women may be more likely to pursue later term abortion due to barriers in accessing safe first-trimester abortion. An estimated 59% of unsafe abortions in Africa occur among women under 25 years of age (Warriner and Shah 2006). A study in Ghana suggested that most life-threatening abortion complications resulted from unsafe abortions performed after the first trimester of pregnancy (Payne et al. 2013).

The third category of information, the woman’s admission, represented the ultimate proof of induced abortion. Only when a woman confessed to having attempted an induced abortion did providers record the case as such in the register. Without the woman’s admission, providers recorded and managed such patients as cases of spontaneous abortion:

The first proof is an admission of the induced abortion without coercion, this is not Guantanamo (laughter). “Madame, what happened?” “I was pregnant, my boyfriend didn’t want it, I went to a man who gave me something to swallow, or who used an instrument on me.” It’s formal. That’s the first proof, we don’t try to discuss further, she admitted. Or, you do the exam and you find a foreign object in the vagina, that’s happened plenty of times. Sometimes it’s compresses, cannulae, stalks, pills…She won’t admit what it is, but you, you’re sure that something…it’s caustic soda, or bleach, or permanganate pills…So you have a bunch of elements that tell you that it’s strongly suspicious, but if she hasn’t admitted, she hadn’t admitted. You stick to that (Physician).

The fact that the woman admits that she had an induced abortion, that’s the first proof…if we don’t have the proof that it’s an induced abortion we treat her like it’s a case of spontaneous abortion (Midwife).
Even in cases demonstrating other indicators of suspicion, such as singlehood, time of arrival, or infection, providers sought the woman’s admission before formally categorizing the case as an induced abortion. Patients who did not confess were eventually released following treatment.

In sum, providers determined the type of abortion through a series of practices related to treating abortion complications. These practices include the patient interview or interrogation, the clinical exam and the ultrasound. Providers considered three main types of evidence when differentiating between induced and spontaneous abortion: patient demographics and behavior, physiological signs, and the patient’s admission of induced abortion. The patient interview often elicited preliminary suspicions that prompted providers to question the patient further. Physiological signs observed during the clinical exam offered strong evidence of induced abortion. Verbal confessions were more likely than the other two types of evidence to prompt providers to document cases as induced abortion in the PAC register.

Although providers insisted that their work in managing abortion complications was strictly medical, the practices and procedures deployed to differentiate between induced and spontaneous abortion fell beyond the realm of the clinical and into the moral territory of abortion. Providers navigated between suspicion and proof according to broader normative expectations regarding gender, sexuality, motherhood and class. Poor, single women or married women with absent husbands were most likely to raise suspicion because their very presence at the hospital suggested evidence of possible violations of normative sexuality. In direct contradiction to the PAC model, these practices reinforced the stigma of abortion by discriminating against suspect women with threats, repeated and invasive questioning and retention at the hospital.
Written strategies: obscuring induced abortion in the medical record

The third strategy involved recordkeeping practices that obscured suspected induced abortion in medical registers. Providers almost unanimously indicated that most of the abortions they treated were spontaneous. Results from my review of 2009 and 2010 PAC registers at the three study hospitals, displayed in Table 14, support this observation. During both years, the majority of abortion cases treated (over 90%) were recorded as spontaneous. Less than 1% of cases were recorded as induced abortion. Between 3 and 8% of cases omitted the type of abortion completely. Cases recorded as something other than induced or spontaneous abortion accounted for between 1 and 4% of cases.

Table 14: Type of abortion recorded in the PAC register at 3 hospitals, 2009-2010

<table>
<thead>
<tr>
<th>Year</th>
<th>Hospital</th>
<th>Total number of cases recorded in the PAC register</th>
<th>Cases recorded as spontaneous abortion</th>
<th>Cases recorded as induced abortion</th>
<th>Cases recorded as other than induced or spontaneous abortion</th>
<th>Cases with no information on the type of abortion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>N</td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>2009</td>
<td>Hospital 1</td>
<td>403</td>
<td>351</td>
<td>87</td>
<td>3</td>
<td>0.7</td>
</tr>
<tr>
<td></td>
<td>Hospital 2</td>
<td>443</td>
<td>413</td>
<td>93.2</td>
<td>1</td>
<td>0.2</td>
</tr>
<tr>
<td></td>
<td>Hospital 3</td>
<td>1467</td>
<td>1358</td>
<td>92.5</td>
<td>7</td>
<td>0.5</td>
</tr>
<tr>
<td>2010</td>
<td>Hospital 1</td>
<td>361</td>
<td>334</td>
<td>92.5</td>
<td>1</td>
<td>0.3</td>
</tr>
<tr>
<td></td>
<td>Hospital 2</td>
<td>389</td>
<td>374</td>
<td>96.1</td>
<td>2</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td>Hospital 3</td>
<td>1092</td>
<td>1044</td>
<td>95.6</td>
<td>4</td>
<td>0.3</td>
</tr>
</tbody>
</table>

Providers’ record-keeping strategies

Table 14 represents the ‘preferred’ or institutional account (Berg 1996; Berg and Bowker 1997; Heath 1982) of the type of abortion treated in the hospital between 2009 and 2010. In order to unpack the production of this account, I explore several cases of admitted and possible induced abortions recorded in the PAC registers during this time period. Table 15 presents one
month of admitted and possible abortion data from each hospital for the years 2009 and 2010.\textsuperscript{17} A total of 26 cases of treated abortions appear in the table. While admitted induced abortions were clearly marked as such in the register, I compiled the possible induced abortion cases using some of the indicators of suspicion described by providers displayed in Table 13. For each case, I list how providers recorded the patient’s marital status (Column A), age (Column B), gestation/parity (Column C), gestational age (Column D)\textsuperscript{18}, mode of uterine evacuation (Column E), and the practitioner responsible for treating the case (Column F). The last two columns indicate how providers recorded the type of abortion in the register (Column G) and the ultimate classification of the abortion (Column H).

\textsuperscript{17} All institutions (health and police) have been de-identified.

\textsuperscript{18} Providers did not explicitly identify gestational age as a marker of suspicion. I include it in this section to add nuance to the description of findings related to record-keeping strategies.
Table 15: Selected indicators of admitted and possible induced abortions in 6 months of PAC register data in 3 hospitals, 2009-2010

<table>
<thead>
<tr>
<th>Month of Observation in Each Hospital</th>
<th>Case number</th>
<th>Marital status (A)</th>
<th>Age (B)</th>
<th>Gestation/Parity (C)</th>
<th>Gestational age (D)</th>
<th>Mode of uterine evacuation (E)</th>
<th>Practitioner (F)</th>
<th>Type of abortion recorded in PAC register (G)</th>
<th>Ultimate classification of abortion (H)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009 Hospital 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hospital 1</td>
<td>1 Single</td>
<td>18</td>
<td>2/1</td>
<td>20 weeks</td>
<td>Expulsion, digital curettage</td>
<td>Midwife</td>
<td>Abortion</td>
<td>Spontaneous</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 None listed</td>
<td>13</td>
<td>0/0</td>
<td>None listed</td>
<td>None listed</td>
<td>None listed</td>
<td>None listed</td>
<td>None listed</td>
<td>Spontaneous</td>
</tr>
<tr>
<td>Hospital 2</td>
<td>1 Married</td>
<td>26</td>
<td>2/0</td>
<td>1 month</td>
<td>Manual Vacuum Aspiration</td>
<td>Midwife; patient referred from Clinic X</td>
<td>Induced Abortion</td>
<td>Induced Abortion</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 None listed</td>
<td>30</td>
<td>1/1</td>
<td>2 months</td>
<td>Digital curettage</td>
<td>Midwife</td>
<td>Spontaneous</td>
<td>Spontaneous</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3 ‘?’</td>
<td>18</td>
<td>1/0</td>
<td>2 months</td>
<td>Digital curettage</td>
<td>Midwife; patient referred from Clinic X</td>
<td>Spontaneous</td>
<td>Spontaneous</td>
<td></td>
</tr>
<tr>
<td>Hospital 3</td>
<td>1 Single</td>
<td>18</td>
<td>1/0</td>
<td>None listed</td>
<td>Expulsion</td>
<td>Midwife; patient referred from Clinic X</td>
<td>Late abortion</td>
<td>Spontaneous</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 Single</td>
<td>19</td>
<td>1/0</td>
<td>2 months</td>
<td>Manual Vacuum Aspiration</td>
<td>Physician</td>
<td>Incomplete abortion</td>
<td>Spontaneous</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3 Single</td>
<td>18</td>
<td>1/0</td>
<td>None listed</td>
<td>Manual Vacuum Aspiration</td>
<td>Physician</td>
<td>Molar abortion</td>
<td>Spontaneous</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4 Single</td>
<td>19</td>
<td>1/0</td>
<td>None listed</td>
<td>Electric aspiration</td>
<td>Physician</td>
<td>Molar abortion</td>
<td>Spontaneous</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5 None listed</td>
<td>26</td>
<td>1/?</td>
<td>2 months</td>
<td>Dilation and curettage</td>
<td>Physician</td>
<td>Hemorrhagic abortion</td>
<td>Spontaneous</td>
<td></td>
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<tr>
<td>No.</td>
<td>Status</td>
<td>Age</td>
<td>Weeks</td>
<td>Method of Expulsion</td>
<td>Midwife</td>
<td>Other</td>
<td>Abortion Type</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----</td>
<td>---------</td>
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<td>-------</td>
<td>---------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>‘?’</td>
<td>14</td>
<td>1/0</td>
<td>Expulsion at home</td>
<td>Midwife</td>
<td>None榜样</td>
<td>Spontaneous</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Single</td>
<td>31</td>
<td>2/1</td>
<td>Manual Vacuum Aspiration</td>
<td>Physician</td>
<td>Ovulatory retention</td>
<td>Spontaneous</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Single</td>
<td>30</td>
<td>4/3</td>
<td>Expulsion</td>
<td>Physician; patient referred from Maternity X</td>
<td>Induced Abortion</td>
<td>Induced Abortion</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Hospital</th>
<th>Status</th>
<th>Age</th>
<th>Weeks</th>
<th>Method of Expulsion</th>
<th>Midwife</th>
<th>Other</th>
<th>Abortion Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>Hospital 1</td>
<td>None listed</td>
<td>22</td>
<td>3/3</td>
<td>Manual Vacuum Aspiration</td>
<td>Midwife</td>
<td>Incomplete abortion</td>
<td>Spontaneous abortion</td>
</tr>
<tr>
<td>2</td>
<td>Single</td>
<td>38</td>
<td>6/4</td>
<td>Digital curettage</td>
<td>Midwife</td>
<td>Spontaneous abortion</td>
<td>Spontaneous abortion</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Single</td>
<td>18</td>
<td>1/0</td>
<td>Digital curettage</td>
<td>Midwife</td>
<td>None listed</td>
<td>Spontaneous abortion</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Single</td>
<td>‘?’</td>
<td>2/1</td>
<td>Digital curettage; Expulsion of fetus at home, not brought to hospital, according to patient</td>
<td>Midwife</td>
<td>Spontaneous abortion</td>
<td>Spontaneous abortion</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hospital 2</th>
<th>Status</th>
<th>Age</th>
<th>Weeks</th>
<th>Method of Expulsion</th>
<th>Midwife</th>
<th>Other</th>
<th>Abortion Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Married</td>
<td>17</td>
<td>1/0</td>
<td>Expulsion; hemorrhage</td>
<td>Midwife</td>
<td>Spontaneous</td>
<td>Spontaneous</td>
</tr>
<tr>
<td>2</td>
<td>Married</td>
<td>19</td>
<td>1/0</td>
<td>Manual Vacuum Aspiration; complications of infection</td>
<td>Midwife; ‘Patient brought by Police of Town X’</td>
<td>Induced Abortion</td>
<td>Induced Abortion</td>
</tr>
<tr>
<td>3</td>
<td>Married</td>
<td>16</td>
<td>1/0</td>
<td>Manual removal of placenta</td>
<td>Midwife</td>
<td>‘?’</td>
<td>Spontaneous abortion</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hospital 3</th>
<th>Status</th>
<th>Age</th>
<th>Weeks</th>
<th>Method of Expulsion</th>
<th>Midwife</th>
<th>Other</th>
<th>Abortion Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Single</td>
<td>22</td>
<td>2/1</td>
<td>Manual Vacuum Aspiration</td>
<td>Physician</td>
<td>Empty sac</td>
<td>Spontaneous abortion</td>
</tr>
<tr>
<td>No.</td>
<td>Status</td>
<td>Age</td>
<td>Weeks</td>
<td>Operator</td>
<td>Doc. Type</td>
<td>Cause of Abortion</td>
<td>Physician Type</td>
</tr>
<tr>
<td>-----</td>
<td>------------</td>
<td>-----</td>
<td>-------</td>
<td>---------------------------</td>
<td>--------------------------</td>
<td>------------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>2</td>
<td>Single</td>
<td>23</td>
<td>2/1</td>
<td>None listed</td>
<td>Dilation &amp; Curettage</td>
<td>Physician</td>
<td>Induced abortion</td>
</tr>
<tr>
<td>3</td>
<td>Single</td>
<td>19</td>
<td>1/0</td>
<td>None listed</td>
<td>Dilation &amp; Curettage</td>
<td>Physician</td>
<td>Hemorrhagic abortion</td>
</tr>
<tr>
<td>4</td>
<td>Married</td>
<td>30</td>
<td>1/0</td>
<td>None listed</td>
<td>Manual Vacuum Aspiration</td>
<td>Physician</td>
<td>None listed</td>
</tr>
<tr>
<td>5</td>
<td>Single</td>
<td>18</td>
<td>1/0</td>
<td>4 months</td>
<td>Expulsion of 2 stillborn fetuses</td>
<td>Midwife</td>
<td>Fetal abortion</td>
</tr>
<tr>
<td>6</td>
<td>None listed</td>
<td>23</td>
<td>5/3</td>
<td>None listed</td>
<td>Digital Curettage</td>
<td>Physician</td>
<td>Late abortion</td>
</tr>
<tr>
<td></td>
<td>Total number of cases</td>
<td>26</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Among the 26 cases of abortion in Table 15, there were only four cases of confirmed induced abortion. Married women accounted for half of these cases and single women the other half. Among the 25 cases documenting patient age, the average age was 21.8, ranging from 13 to 38 years of age. Single women accounted for 78% of cases that documented marital status (14/18). Marital status was omitted in 27% of cases (7/26). Up to 42% of all cases (11/26) omitted information on the patient’s gestational age. Both midwives and physicians managed cases of abortion.

My review of the PAC record suggests that providers used three primary strategies to record most cases as spontaneous abortion and thus obscure suspected cases. The first strategy involved the use of terminology to describe the case without specifying whether the abortion was spontaneous or induced. Providers used a variety of terms to describe abortion in Column G such as ‘late,’ ‘hemorrhagic,’ or ‘incomplete’ abortion. Case 1 in Hospital 1 in 2009 listed the type of abortion simply as ‘abortion.’ In medical terminology, ‘abortion’ refers to any pregnancy loss before the 24th week of gestation (Farquharson, Jauniaux and Exalto 2005; WHO 2008). Providers explained that any cases not explicitly marked as induced were by default considered to be spontaneous in the register itself (Column H). Table 15 illustrates how cases displaying indicators that would likely have been considered suspicious were documented using non-differentiating terminology in Column G and thus ultimately considered spontaneous (Column H). For example, cases 1 through 5 and case 7 in Hospital 3 in 2009 indicated that the patient was single or omitted the patient’s marital status. None of these cases were documented using terminology that differentiated between induced and spontaneous abortion. All of them were ultimately considered spontaneous abortion.
The second strategy deployed to obscure suspected induced abortion was the omission of data from the register. Omission appeared as a completely blank entry or a question mark (?) recorded by the provider. This study’s retrospective review of the register complicates the ability to determine whether the omission of information occurred because of the provider’s inability to obtain information from the patient or from a deliberate decision to withhold possibly incriminating information. Nevertheless, the omission of information appeared to reduce the likelihood that a case was classified as induced abortion. At all three hospitals in 2009 and 2010, none of the seven cases in which marital status was omitted was listed as an induced abortion. Providers recorded only the patient’s age (13) in case 2 at Hospital 1 in 2009. This case was ultimately classified as a spontaneous abortion. At Hospital 2 in 2010, providers omitted gestational age and type of abortion for case 3, which was ultimately classified as a spontaneous abortion. In contrast, cases documented as induced abortion appeared to have fewer omissions. Among the four cases of induced abortion displayed in Table 5, only case 2 in Hospital 3 in 2010 was missing information (gestational age).

The third strategy entailed accounting for abortion in annual hospital data in aggregated terms. In Table 14, I report the number of induced abortions identified in the 2009 and 2010 registers. In 2009 and 2010, I identified 11 and 7 induced abortions, respectively, in the registers at the three hospitals. Table 16 displays the total number of abortions treated between 2004 and 2010 according to annual hospital statistics. These data show that hospital administration accounts for the total number but not the type of abortions treated. The induced abortions recorded in the 2009 and 2010 PAC registers were thus unidentifiable among the total number of treated cases transmitted to the Ministry of Health.
### Table 16: Total number of abortions treated in 3 hospitals, 2004-2010

<table>
<thead>
<tr>
<th></th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital 1</td>
<td>NA*</td>
<td>377</td>
<td>531</td>
<td>582</td>
<td>451</td>
<td>456</td>
<td>405</td>
</tr>
<tr>
<td>Hospital 2</td>
<td>121</td>
<td>160</td>
<td>211</td>
<td>248</td>
<td>339</td>
<td>415</td>
<td>384</td>
</tr>
<tr>
<td>Hospital 3</td>
<td>NA</td>
<td>NA</td>
<td>1769</td>
<td>1743</td>
<td>1438</td>
<td>1197</td>
<td>678**</td>
</tr>
</tbody>
</table>

*Data unavailable in hospital records.

**This figure represents data from January to June 2010. Data for July to December 2010 were unavailable due to the national rétention des données (data strike).

Factors related to the surrounding circumstances of the case also appeared to influence how the abortion was documented in the register. Examples include where the abortion occurred and how the patient ended up at the hospital. In case 6 at Hospital 3 in 2009 and case 4 at Hospital 1 in 2010, providers noted that the patients reported ‘expulsing’ the fetus at home prior to coming to the hospital for treatment and recorded these abortions as spontaneous.

The administrative or therapeutic involvement of other institutions also appeared to influence how providers recorded cases in the register. Cases 1 and 3 in Hospital 2 in 2009 and cases 1 and 8 in Hospital 3 in 2009 were referred to the hospitals by other health facilities. Only case 8 in Hospital 3 in 2009 was classified as induced abortion. In 2010, case 2 was brought to Hospital 2 by police officers from a nearby town and was recorded as an induced abortion. Cases involving a police presence, therefore, may have offered providers less room to manage and record the case as spontaneous than cases referred by other health facilities.

Table 15 displays five cases in which the provider documented gestational age beyond the first trimester: case 1 in Hospital 1 in 2009, case 4 in Hospital 1 in 2010, cases 1 and 2 in Hospital 2 in 2010, and case 5 in Hospital 3 in 2010. In case 4 at Hospital 1 in 2010, the patient reported expulsing the fetus at home. Among these cases, only one was documented as an
induced abortion: case 2 in Hospital 2 in 2010. This was the same case mentioned above in which the patient was brought to the hospital by the police of a nearby town. These findings suggest that in the absence of police involvement, even cases involving advanced gestational age could be managed and recorded as spontaneous abortion.

In sum, the use of non-differentiating terminology to describe abortion and the omission of data contributed to the classification of the majority of abortions as spontaneous in the medical register. Annual hospital data further obscured induced abortion by accounting only for the total number but not the type of cases treated. The circumstances surrounding the abortion, including where the expulsion of the fetus occurred and the type of institution that was administratively or therapeutically involved in the case, also appeared to influence how providers documented cases in the register.

A blurred line between uncertainty and complicity

The analysis of recordkeeping strategies in Table 15 is retrospective and therefore incomplete. My investigation of providers’ record-keeping practices through interviews, observation and a prospective review of the medical register, adds additional insight into the obscuration of induced abortion in the medical record.

During my hospital fieldwork, I observed several instances in which patients suspected of induced abortion were managed and recorded as cases of spontaneous abortion and eventually released. At one hospital, a woman who self-identified as married arrived with a high fever and bleeding after two months of amenorrhea. During the ‘interrogation,’ the woman denied knowing that she was pregnant. She took a ‘concoction’ (provider’s word) to relieve a headache after a disagreement with her husband. The providers involved in her case felt that her story did not add up and that she had likely knowingly induced the abortion. The woman continued to insist on
her version of events. The providers treated the woman and released her the next day. In spite of suspicion regarding the circumstances of the abortion and repeated interrogation, providers recorded the case as ‘incomplete’ abortion (spontaneous) in the register.

At another hospital, during an early morning staff meeting, a physician instructed midwives to ‘re-interrogate’ a patient who had arrived the night before with complications after taking a ‘concoction’ (provider’s word). When I followed up with the midwife who questioned the patient again, she explained, laughing skeptically, that the woman reported taking a concoction to ‘clean her stomach’ (provider’s word). She reported not knowing she was pregnant. The midwife further explained that the woman was 17 weeks along (approximately 4 months), in her early 30s, unmarried and had an 11-year-old child. The results of the ultrasound indicated that the fetus was no longer alive. The midwife indicated that she would give the patient medication (Misoprostol) to open the cervix and induce contractions in order to deliver the fetus. When I checked the PAC register, this patient suspected of induced abortion had been recorded as a ‘late abortion,’ indicating it was classified as spontaneous rather than induced abortion.

While most providers acknowledged challenges in differentiating between induced and spontaneous abortion, some providers indicated that they deliberately record suspected cases of induced abortion as spontaneous abortion to avoid police involvement. A nurse offered both humanitarian and professional justifications for inaccurately recording induced abortion:

Nurse: If a woman has her reasons for doing an abortion, we often have pity on her, and we are sensitive to her needs.

SS: Are some cases of induced abortion recorded as spontaneous abortion?

Nurse: Yes. There’s complicity between patients and providers. It’s because it’s a nuisance to record a case as induced abortion.
Another nurse described preemptively recording all PAC cases as spontaneous abortion:

Nurse: We record them all as spontaneous abortions, knowing that induced abortion is illegal, therefore there can’t be any induced abortions. So we consider them to be spontaneous abortions and we record them as spontaneous abortions.

SS: But is it possible that there are some induced abortions among these abortions?

Nurse: Yes, it’s very possible, but as I just told you, as long as there are no complications we can manage the situation (Nurse).

A physician at the third hospital explained how they recorded cases as spontaneous even when there was suspicion of induced abortion:

We know that most of them lie, but if she says it’s spontaneous, you can’t write induced, you have to write spontaneous…we record what the patient tells us, we write the words of the patient, we are not the police, we don’t do investigations (Physician).

Other physicians indicated that they did not go out of their way to contact the police when they encountered suspect cases. Two gynecologists at the first hospital explained that while they complied with police requisitions about suspected induced abortion cases, they did not initiate contact with law enforcement regarding suspected cases in the hospital. A senior gynecologist at a tertiary level hospital located in one of the study regions shared that although she recorded induced abortion in patients’ medical files, she did not notify law enforcement. The senior gynecologist at the second observation site indicated that as long as the woman came alone (without police accompaniment), they just treated and released her. Physicians at the third hospital also acknowledged that they did not always alert law enforcement authorities in cases of induced abortion.

Midwives were more explicit than doctors or nurses in indicating that they deliberately recorded suspected induced abortion as spontaneous to avoid police involvement:

Sometimes we’re not sure if it’s a case of induced or spontaneous abortion. But the midwife may write spontaneous (in the register) if she’s not sure or even if she knows if
it’s an induced abortion because of the possibility of being called to testify. It happens often (Midwife).

Sometimes the midwife will say it’s a spontaneous abortion when it’s an induced abortion. There are implications for the provider if the case is pursued by the police...it’s rare for the provider to write induced abortion. Because you have to prove it and you can’t let the patient go after treatment. You have to do an investigation to say why you recorded an induced abortion. It’s just easier to write spontaneous abortion...you won’t have to be bothered with all that. It’s better to let some cases go (Midwife).

Several midwives framed their response to suspect cases in terms of empathy toward the patient and the circumstances under which she sought an induced abortion:

Normally we’re supposed to (inform the police), but it’s a question of humanity. We try to understand the woman. It depends on the situation. What happened? If it was premeditated, perhaps we may inform the police. But in cases of rape or incest, we try to understand... It’s better to let some cases go...It’s my point of view, especially with regard to cases of rape or incest (Midwife).

We are accomplices because we pity these women (Midwife).

The interrogation should help us decide if it’s an induced abortion. So when we’re not really sure, and we know that these women, if they are denounced (to the police), then they’ll be in prison for two years or more...We try to manage the emergency and the rest is not our problem (Midwife).

Sometimes the women confess, but we take pity on them and we don’t denounce them because they are young and innocent (Midwife).

One midwife at the third hospital indicated that she did not always conduct a clinical exam. I observed a case in which a young woman with complications of an abortion of 4 months, who self identified as single, did not undergo a clinical exam with the speculum. Another midwife noted that the very clinical characteristics of the case, such as gestational age or state of the cervix, determined how providers managed the case:

The law is very strict. Abortion is forbidden by the law and we notify the police. But if the pregnancy is one, two, or three months, we don’t alert the police. But if it’s a late abortion...If she took concoctions and there are no signs of induced abortions, we don’t call the police. But if we find catheters, we call the police (Midwife).
The ability to conceal an induced abortion from the police, therefore, is in part determined by the physical condition in which the patient arrives at the hospital as well as the circumstances under which the abortion was performed.

It is not entirely surprising that midwives might be more complicit than physicians in disguising induced abortions. As the self-described ‘maîtresses’ (mistresses) of the delivery room, midwives’ encounters with patients occur over a longer period of time and entail greater intimacy than relationships between physicians and patients. While gynecologists attend to Caesarean-sections and other operations in the maternity ward, midwives are involved in patient care from the moment they arrive in the delivery ward and are triaged to the moment of release. Midwives provide not only delivery care, but also prenatal and postnatal care and family planning services. One midwife described how midwives often collude with women to hide evidence of hormonal contraceptive use from resistant husbands. Midwives spoke proudly of their role in helping women deliver babies safely and reducing maternal and infant mortality.

This is not to exaggerate the sense of gender-based solidarity between midwives and their women patients. On the contrary, I observed service delivery practices on a daily basis during fieldwork at the hospital sites that reinforced class and professional hierarchies between midwives and their patients such as verbal abuse, physically rough treatment, delays in treatment and a disregard for patient privacy during the intimate moments of delivery or abortion. These observations are not new. Scholars have extensively documented the reenactment of social hierarchies during encounters between medical practitioners and pregnant and birthing women in sub-Saharan Africa (Eades et al. 1993; Etuk, Itam and Asuquo 2000; Geurts 2001; Gilson, Alilio and Heggenhougen 1994; Grossmann-Kendall et al. 2001; Jaffré 2012a; Jaffré and Olivier de
Instead, my research suggests that while physicians are responsible for alerting law enforcement authorities in the case of confirmed induced abortion, it is midwives who ultimately determine whether or not to inform physicians of cases of suspected cases in the delivery room. Given their significant role in PAC, midwives serve as gatekeepers to the legal pursuit of induced abortion. The strategies deployed by midwives to disguise induced abortion as spontaneous subvert not only the expectation that medical providers will cooperate with law enforcement authority by reporting suspected induced abortion, but also the hierarchy of professional authority between paramedical providers and gynecologists in the maternity ward.

*Rewriting abortion: the production of the preferred account*

The data in Table 14 indicate that most abortions treated in three Senegalese hospitals between 2009 and 2010 were recorded as spontaneous. I do not dispute the terminology used by medical providers (displayed in Table 15) to describe abortion such as late or incomplete abortion. However, if this terminology, or the omission of any terminology at all, permits suspected cases of induced abortion to be recorded as spontaneous, it is highly likely that the registers underestimate the number of induced abortions treated at the hospitals. The few induced abortions recorded in the registers are included but de-identified in annual hospital statistics that document only the total number of cases treated. The documentation of abortion in hospital records represents the ‘preferred’ or ‘public’ account (Berg 1996; Berg and Bowker 1997; Heath 1982) of the type of abortion treated in state hospitals, produced through a series of practices deployed to maintain professional control over abortion. Suspected cases of induced abortion pass through the hospital, obscured in the record as miscarriage.
The preferred account of the type of abortion treated is not limited to the hospital. Rather, it is embedded within a broader assemblage of social, economic, and legal institutions (Berg 1996; Berg and Bowker 1997; Heath 1982; McKay 2012). My review of court records of illegal abortion in one region of the country found that in nearly 25 years, between 1987 and 2010, the state only prosecuted 42 cases of illegal abortion (less than two cases per year, on average). One of the three study hospitals was located in this region. Only in one case did a health provider from this hospital (or any other health facility in the region) appear in court records as a witness. The preferred account of the type of abortion may limit the capacity of criminal justice authorities to detect suspected cases of induced abortion at the hospital, thereby preserving medical providers’ professional autonomy.

The paradox of boundary work in PAC

If providers make abortion invisible to criminal justice authorities, why do they attempt to differentiate between induced and spontaneous abortion in the first place? By investigating the type of abortion, providers protect themselves should the police inquire into a case of suspected induced abortion. I described earlier a midwife who reported retaining suspected women in case ‘someone’ notified the police. The following scenarios described by a midwife and a physician underline the importance for providers of knowing, or at least being able to demonstrate that they attempted to learn, the type of abortion:

I heard that some of the midwives were called to the police station in a case of suspected induced abortion. The police asked them questions. Finally they saw that it was a case of spontaneous abortion. The patient does not always tell you. You always have to know what you’re doing, otherwise you’re not covered. You have to do complete exams and in-depth interrogations. It’s also better to do the ultrasound (Midwife).

I’m not obligated to report, but I will never protect someone else before I protect myself. There have been cases where people in the neighborhood went to the police and said this girl had an induced abortion. The police investigate the case and find out she was treated
at my hospital. They ask me, Dr. X, what do you think of this girl? And I say I didn’t know it was an induced abortion. What does that say about me, that I didn’t know it was an induced abortion? What does it say about my credibility as an obstetrician-gynecologist? It’s all well and good to say you shouldn’t report such cases, but there are things that happen to you that make you feel smaller than...you just want to crawl under the table. And I’ve never wanted to crawl under the table in my whole life (Physician).

The possibility of police involvement requires providers to exercise due diligence when confronted with suspected cases of induced abortion. I found no cases in the media or in the legal record of health providers that were charged as accomplices for recording induced abortions as miscarriages. However, the severity of the law with respect to complicity in abortion may compel providers to demonstrate that they reasonably and prudently attempted to differentiate between induced and spontaneous abortion.

While providers’ discursive, clinical and written boundary work strategies offer a measure of professional autonomy, they must still navigate an ambiguous array of competing legal and professional obligations that are all too real in their consequences for providers and women patients. Due to the silence of the abortion law on the obligation of reporting, health care professionals must decide for themselves whether or not to report suspected cases of induced abortion. This leads to a significant tension between their professional obligation to protect patient privacy (le secret professionnel) and the perceived obligation to report cases of induced abortion to the authorities to avoid charges of complicity.

My study is unable to estimate the prevalence of police notification among medical providers who treat complications of abortion. However, a survey of physicians in El Salvador, where the legal context of abortion is similar to that of Senegal, offers insight into the extent of this practice. In El Salvador, the law forbids abortion under any circumstance but does not obligate providers to report induced abortion (Hitt 2006). More than half (56%) of 110 obstetrician-gynecologists surveyed in this study indicated that they had notified the police when
faced with a suspected case of illegal abortion. Among these physicians, up to 42% said they reported such cases to avoid being charged as an accomplice (McNaughton et al. 2006).

Conclusion

In this chapter, I identified three types of boundary work performed by medical providers in the management of complications of abortion at state hospitals in Senegal. My research suggests that providers’ boundary work protects professional autonomy by minimizing the risk of police intervention. Treating suspected cases of induced abortion as if they were spontaneous abortions favors both medical providers and women. Providers avoid police involvement, which may lead to closer scrutiny of clinical practices and records and even participation in court proceedings as an expert witness. Women avoid police interrogation, arrest, prosecution and imprisonment. PAC has also given rise to new professional authority for paramedical providers like midwives. Due to the decentralization of PAC from higher to lower levels of the health system, midwives now perform the bulk of PAC services throughout Senegal. It is thus primarily midwives who are engaged in boundary work around abortion as they manage and record cases and make other decisions with respect to the initiation of legal pursuit.

My research also demonstrates what institutional ethnographer Marjorie Devault has called ‘the organizing power of texts’ (DeVault 2006). The medical record seeks out induced abortion by requiring providers to specify the type of abortion as well as by inquiring after patients’ marital status. In direct contradiction with the PAC model, which calls for non-discriminatory treatment, women suspected of induced abortion are subjected to extensive questioning, retention at the hospital, and at times, arrest. The record renders invisible the highly
subjective practices involved in observing and interpreting patients’ demographic characteristics and behavior that elicit suspicion of induced abortion in the first place.

At the same time, the medical record and its processes of inscription produce an account of abortion that suggests that most cases treated in hospitals are complications of miscarriage. This mundane account accomplishes an important separation between post-abortion care and induced abortion for medical professionals in a country with a highly restrictive abortion law and an international donor for reproductive health that is anti-abortion. Although this account protects women from arrest, in the long term it contributes to the prevalence paradox of abortion (Kumar, Hessini and Mitchell 2009) by reinforcing the notion that induced abortion is rare. The omission of abortion data also represents a missed opportunity to document the scope of unsafe abortion and its related costs for women and health systems in order to advocate for reform of an archaic abortion law that has been in place since the French colonial administration.

Boundary work practices and tools in this context illustrate what scholars of abortion have termed the ‘local reproduction of abortion stigma’(Kumar, Hessini and Mitchell 2009). At the level of the health facility, medical providers reinforce the social deviance of abortion by treating women suspected of illegal abortion differently than women who present with complications of miscarriage. The obscuration of induced abortion occurs at multiple levels of the health information system, from the PAC register in the hospital maternity ward to the aggregated abortion data transmitted to the DSR by district and regional health authorities. The account of abortion produced by the health information system reinforces the representation of PAC as an intervention for saving mothers, which strengthens yet again the social deviance of women who seek to terminate pregnancy. While the Ministry of Health has used data from the
PAC program to leverage support from international NGOs and donors, these data fail to offer insight into the scope of clandestine and frequently unsafe abortion in Senegal.

The contradictions and constraints involved in managing abortion complications arise from the location of PAC at the intersection of medicine, criminal justice and transnational abortion politics. The PAC model calls for a particular configuration of service delivery and infrastructure that is not always feasible for health facilities with limited resources. Although PAC promotes non-discriminatory treatment of both spontaneous and induced abortions, it overlooks the reality of severe abortion stigma as well as the unspoken expectation on the part of law enforcement authorities that medical providers will report suspected cases of induced abortion. In the absence of a standard protocol for managing suspect cases issued by the Ministry of Health or another medical professional authority, medical providers rely on boundary work to maintain professional jurisdiction over abortion. This boundary work draws on highly subjective and discriminatory practices and offers limited and precarious professional control over abortion. PAC pits providers against patients as they attempt to preserve their professional reputation, thereby reproducing the stigma of abortion. Ultimately, these constraints and contradictions point to the inadequacy of PAC as a public health solution to unsafe abortion for women and health professionals in a context with a highly restrictive abortion law.
(8) Conclusion

One of the primary sociological questions guiding this study was how PAC had transformed the treatment of abortion complications in Senegal from a legal to a medical matter. My findings suggest that the introduction of the PAC model of care has indeed changed the meaning and structure of treatment. Health providers and MOH officials at multiple levels of the health system have accepted the philosophy of PAC, which calls for non-discriminatory treatment of complications of spontaneous and induced abortion. For health care professionals, the main priority is widely understood to be the treatment of complications rather than initiation of legal inquiries into suspected cases of induced abortion. PAC transformed the structural organization of abortion care by decentralizing services to district hospitals that were previously restricted to tertiary hospitals. The MOH introduced MVA, a syringe device that was safer and more effective than digital curettage and significantly cheaper than dilation and curettage (D&C). This new configuration of care broadened the scope of professional authority for midwives, who now provide the bulk of PAC services in tertiary and secondary hospitals throughout Senegal. It also increased access to life-saving treatment for women in rural zones who no longer had to travel to regional hospitals to receive medical care.

In spite of these discursive and structural shifts, my study suggests that PAC has not transformed the treatment of abortion complications into an exclusively medical intervention. The legal status of abortion remains a persistent threat to the political credibility of the Ministry of Health, the primary champion of PAC. The abortion law also threatens the professional reputation of individual health care workers who treat complications of abortion. The national PAC program’s primary donor, USAID, is forbidden by the Helms Amendment from supporting abortion as a form of family planning. These transnational anti-abortion policies require further
vigilance on the part of the Ministry of Health and state medical providers to ensure that PAC remains an intervention for treating abortion complications rather than terminating pregnancy.

This study draws on boundary work theory to explore the protection of medical autonomy from political interference (Gieryn 1983). I identify discursive, technical and written strategies deployed by state health officials and providers to negotiate professional authority over PAC. My research supports Abbott’s theory of professionalization by illustrating how boundary work is accomplished in multiple arenas (Abbott 1988), including policy, health information systems and hospitals. By focusing on the national PAC program, a health intervention developed in the US and implemented in a global South context, I offer new theoretical insight into how boundary work occurs transnationally. PAC practitioners in Senegal navigate not only between medicine and criminal justice, but also between global and local reproductive health policies and discourses.

To ensure the political acceptability of PAC in a context where abortion is forbidden, the Ministry of Health aligned the intervention with the global Safe Motherhood initiative. Conceived by international reproductive health NGOs in the early 1990s to address women’s mortality and morbidity from unsafe abortion, PAC in Senegal has become an intervention for the treatment of miscarriage among current or expectant mothers. The gendered coding of PAC is reinforced by a national health information system that does not distinguish between induced and spontaneous abortions treated in hospitals. The obscuration of induced abortion contributes to what scholars of abortion have called ‘the prevalence paradox’ (Kumar, Hessini and Mitchell 2009), in which the omission of data reinforces the notion that induced abortion is rare. In turn, the notion that abortion is rare reinforces the social deviance of women who seek and medical providers who perform this procedure. To ensure the ‘right’ (Casper and Clarke 1998; Fujimura
and Clarke 1992) utilization of MVA in state hospitals, the Ministry of Health centralized
distribution of the device in the capital city of Dakar rather than the national medical supply
system of the Pharmacie Nationale d’Approvisionnement (PNA). Integrating MVA into the
PNA posed too much of a threat to the Ministry’s carefully constructed boundaries between
‘right’ and ‘wrong’ utilization of the device.

By offering insight into the boundary work practiced in hospitals, my study contributes to
extensive scholarship on jurisdictional disputes over abortion (Amin 2003; Amir and Biniamin
1992; Carranza 2007; Freedman 2010; Halfmann 2011; Joffe 1996; Luker 1985; McNaughton,
Mitchell and Blandon 2004; McNaughton et al. 2006; Mohr 1978; Rance 2005; Reagan 1998).
In contrast to studies that focus on induced abortion, my research shows how the treatment of
complications of both spontaneous and induced abortion has emerged as a site of professional
dispute. I offer a theoretical framework for understanding the discursive, technical and written
professional boundary work strategies in the daily treatment of abortion complications. My
research illustrates how these strategies work in unison to obscure suspected cases of induced
abortion in the hospital. Although providers understand their work as medical, they draw
significantly on social indicators such as marital status in the differentiation between
spontaneous and induced abortion. The calculus of indicators reinforces the social deviance of
induced abortion by subjecting women suspected of this practice to extensive questioning and
retention at the hospital. These practices profoundly contradict the philosophy of PAC, which
calls for non-discriminatory treatment of complications of spontaneous and induced abortion.

PAC raises a series of professional and public health paradoxes that call into question the
capacity of this intervention to accomplish its goal of reducing mortality and morbidity from
unsafe abortion. The transnational abortion policy framework of PAC in Senegal limits medical
authority to the treatment of botched abortion, frequently initiated by unskilled practitioners, rather than performing safe abortion. It withholds quality medical care from women until they have resorted to unsafe practices outside the formal health system. This policy framework engenders institutional practices that discriminate against women such as the exclusion of MVA technology from the national medical supply system and the singling out of women suspected of induced abortion in hospitals. The political alignment of PAC under the umbrella of Safe Motherhood has prioritized the health of mothers rather than women. The notion that the intervention treats primarily complications of miscarriage reinforces the social deviance of women suspected of induced abortion. Data collection practices that obscure induced abortion at multiple levels of the health system further contribute to Senegal’s abortion prevalence paradox.

The PAC model was developed in the early 1990s to address the global health problem of induced abortion. Paradoxically, PAC has reinforced the isolation of abortion from medical and public health practice in Senegal. The discursive, technical and written strategies of health officials and health providers have reinforced the stigma of abortion for women and health professionals. They have also reproduced gendered disparities in access to safe medical care. These strategies are not deployed in a political vacuum. On the contrary, health officials and medical providers perform boundary work in order to negotiate transnational discourses and policies that simultaneously support reproductive health and reject induced abortion as a legitimate medical procedure.

By identifying the paradoxes of PAC in Senegal, I do not suggest that this intervention should be dismantled. PAC ensures treatment for complications of miscarriage, which is estimated to occur in up to 20% of all pregnancies (Farquharson, Jauniaux and Exalto 2005; Kalumbi, Farquharson and Quenby 2005). In a developing context such as Senegal, poor
maternal health due to malnutrition, anemia and malaria may further exacerbate the risk of spontaneous abortion (Curtis 2007). Rather, I argue that PAC is an inadequate programmatic response to the policy framework that gives rise to complications of induced abortion that are treated in hospitals alongside complications of spontaneous abortion. Evidence from around the world shows that when induced abortion services are safe and legal, complications of abortion that lead to mortality and morbidity are rare. Reductions in abortion mortality and morbidity have been observed in countries that liberalized their laws. In contrast, abortion mortality and morbidity are high in countries with restrictive abortion laws (Benson, Andersen and Samandari 2011; Jewkes et al. 2002; Jewkes et al. 2005; Sedgh et al. 2007b; Sedgh et al. 2012; Singh et al. 2009).

In order to address the public health problem of unsafe abortion, the Government of Senegal should revise the current abortion law to reflect its commitment to international treaties that call for women’s reproductive health and rights. Senegal has ratified at least two such human rights treaties, including the Convention on the Elimination of All Forms of Discrimination (CEDAW, 1979) and the Platform of Action of the International Conference of Population and Development (ICPD, 1994). Senegal also ratified the Maputo Protocol (2003), which explicitly calls on governments to permit safe abortion in cases of rape/incest, to preserve the woman’s physical and mental health, and to preserve her life. At the very least, the Government of Senegal should harmonize the law with the code of medical ethics, which permits abortion to preserve the life of the woman.

In addition to legal reform, the Ministry of Health and medical professional associations should draw on both the penal code and the 2005 reproductive health law to clarify that medical providers are not required to notify criminal justice authorities in cases of suspected or confirmed
induced abortion. The Ministry of Health should issue guidelines for non-discriminatory management of cases of induced abortion in public hospitals that respect patient privacy and rights. Contraceptive services and technologies must be widely available to reduce the incidence of unwanted pregnancy, which often leads to unsafe abortion.

The Ministry of Health should also take steps to reduce gendered disparities in health care. To ensure women’s access to MVA, the Ministry of Health should dismantle the current centralized distribution system and integrate this device into the national medical supply system. Hospitals should revise formal and informal organizational policies that perpetuate the use of methods such as digital curettage and D&C when MVA is available. To prevent discrimination against post-abortion care patients, the Ministry of Health should remove the column in the PAC register that inquires after marital status. The Ministry should also harmonize the PAC register with the national health information system. If hospitals are only required to report the total number of abortions treated, the PAC register should no longer require medical providers to differentiate between induced and spontaneous abortion.

The policy framework of PAC in Senegal also includes American development assistance for reproductive health. The US is one of the largest funders of reproductive health programs, including family planning, PAC and maternal and neonatal health, around the world. Nearly half of the international NGOs involved in PAC activities in approximately 50 countries around the world receive USAID funding (PAC-Consortium 2012). In Senegal, USAID’s maternal and child health division has supported training, supervision, advocacy and monitoring and evaluation of PAC activities. However, the Helms Amendment prohibits USAID from performing abortion as a form of family planning or ‘motivating or coercing persons to practice
abortion’ (Barot 2013). Although USAID has supported seminars that train health providers to use MVA, the agency cannot *purchase* the technology because it is an abortifacient.

The paradoxes of PAC arise from this policy configuration that offers support to some elements of reproductive health care while excluding induced abortion. American population assistance supports family planning, obstetric care and post-abortion care, but not induced abortion (not even in cases of incest/rape or to preserve the woman’s life). Although the PAC model calls for the use of uterine evacuation methods such as MVA and Misoprostol that are safer than D&C and digital curettage, American dollars cannot be used to procure these technologies in Senegal.

These contradictions in US population policy must be resolved. Political commitments to women’s health should support all services, including safe abortion where legal, that fall within the continuum of reproductive health care. In 2009, President Obama took an important step towards honoring this commitment by rescinding the Mexico City Policy. However, American population assistance continues to exclude the support of abortion-related services and technology through the Helms Amendment. This Amendment should be revised or reinterpreted to permit the purchase of technologies like MVA and Misoprostol for PAC. It should also be brought in line with other federal abortion legislation, such as the Hyde Amendment of 1977, which prohibits the use of Medicaid for abortion except in the case of rape/incest or to preserve the woman’s life. Federal legislation for the Indian Health Service, women in federal prisons and women military personnel similarly makes exceptions for these circumstances (Barot 2013).

Given the influence of the US in the field of global reproductive health, such legislative measures would go a long way towards dismantling the culture of silence around abortion in transnational population politics and programming. Addressing abortion stigma at the level of
transnational policy would also open up avenues for abortion advocacy at the national level in Senegal. Professional organizations like l'Association des Juristes Sénégalaises and l'Association des Médecins Femmes have made human rights and public health arguments in favor of liberalizing the abortion law. A thaw in US population assistance funding policy would facilitate concrete changes in public health programming that integrate safe abortion into reproductive health care.

Future research

Although this study offers insight into how medical providers negotiate authority over abortion in hospitals, it does not adequately address the role of women patients in this process. Sociologists have demonstrated how patients, as consumers of health care, participate in social and professional disputes over medical definitions, resources, services and research (Auerbach and Figert 1995; Bell 2009; Conrad and Potter 2000; Epstein 1996; Klawiter 2008). In another project, I aim to investigate how women patients negotiate their interactions with health care professionals during the treatment of abortion complications. I will explore decision making among women and their families with respect to seeking medical care for abortion complications. In particular, I wish to learn how women participate in the production of the account of the type of abortion. What kinds of information do women disclose to health providers regarding abortion complications? Are women aware ahead of time of particular narratives of abortion symptoms and outcomes that suppress providers’ suspicion of induced abortion? I will explore how this information shapes the course of treatment administered by health providers. This study will offer insight into how women understand and experience abortion stigma within the health care setting and the wider community. It will also explore how
social expectations regarding female sexuality are embodied and contested by women during the medical encounter.

This study also raises questions about the other PAC technology in Senegal: Misoprostol. Like MVA, Misoprostol is dually capable of treating abortion complications and terminating first trimester pregnancy. In a subsequent project, I plan to investigate how Misoprostol has altered the political and professional landscape of abortion in Senegal. During my fieldwork, I learned that Marie Stopes International was working quietly behind the scenes to formally register the drug. Misoprostol is now available in pharmacies. I observed the drug being used occasionally to treat PAC cases during my fieldwork. However, Misoprostol utilization was closely regulated by physicians precisely because of its capacity to induce abortion. I plan to study how state and private medical professionals (including pharmacists), lay individuals and criminal justice authorities deploy Misoprostol in the negotiation of authority over abortion. I will explore the circumstances under which state and private medical providers provide Misoprostol to their clients. I will assess the accessibility of Misoprostol in pharmacies. How do women learn about and purchase the drug, and for what purpose? I will investigate the legal framework of Misoprostol. What factors facilitate the off-label utilization of Misoprostol? How do medical providers and women avoid arrest for off-label utilization? How do criminal justice authorities detect and investigate such practices? The study will explore how Misoprostol has enhanced or hindered political, public health and professional goals among NGOs, medical professionals and state institutions. I will also investigate how health authorities and NGOs are measuring the public health impact of legal and illegal Misoprostol use.

My dissertation offers a useful theoretical framework for understanding how the practice of abortion care unfolds in contexts where this procedure is highly restricted. Although this
study shows how medical professionals negotiate authority over abortion, it offers a limited account of the professionalization of obstetrics/gynecology in Senegal. In a new research project, I plan to investigate the emergence of this field during the period of French colonization. Such an approach would offer greater insight into how PAC, among other reproductive health programs in Senegal, has emerged from a long, complex set of interactions between local practices and transnational population policies beginning with nineteenth century French colonial prohibitions on abortion and contraception, and continuing into the contemporary post-colonial era in which the legislation of donor countries influences Senegalese policy. This study would require consulting archival collections in Senegal and France on the role of the state in developing and enforcing population discourse and policies. It would also require greater attention to the negotiation of professional jurisdiction between the health care professions. Throughout sub-Saharan Africa, an acute shortage of physicians exacerbated by ‘brain drain’ has left the bulk of reproductive health care in the hands of paramedical professionals like midwives and nurses (Berer 2009; Hagopian et al. 2005; WHO 2010). Neoliberal restructuring since the 1980s has significantly narrowed the role of the Senegalese state in providing affordable health care to its citizens (Foley 2009). I would combine this review with an analysis of qualitative data on professional experiences obtained from in-depth interviews conducted with 49 state health providers and officials during the dissertation fieldwork. This new study would build on the dissertation by exploring the negotiation of professional authority over reproductive health care within a broader social, historical, political and economic context.
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Appendix 1: Map of Senegal

Figure 11: Map of Senegal

Source: http://www.nationsonline.org/oneworld/map/senegal-administrative-map.htm
Appendix 2: Administrative regions of Senegal

Figure 12: Administrative regions of Senegal

## Appendix 3: Agencies involved in PAC in Senegal

### Table 17: Agencies involved in PAC in Senegal

<table>
<thead>
<tr>
<th>Organization</th>
<th>Affiliation and type of organization</th>
<th>Received USAID support for PAC?</th>
<th>Description of involvement in PAC</th>
<th>Duration of PAC work in Senegal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Centre Régional de Formation et Recherche sur la Reproduction (CEFOREP)</td>
<td>Regional and national reproductive health research and training center.</td>
<td>Yes (through collaboration with contracting agencies (CA(^{19}) of USAID)</td>
<td>Designed, coordinated and conducted operations research on PAC and training of health professionals; published literature review of abortion in Senegal; published and disseminated reports of operations research; procures and manages distribution of MVA through Ipas.</td>
<td>1997 to present</td>
</tr>
<tr>
<td>(Regional Center for Training and Research in Reproduction)</td>
<td>------------------------------------------------------------------------------------------------------</td>
<td>--------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------</td>
<td>---------------------------------</td>
</tr>
<tr>
<td>Clinique Gynécologique et Obstétricale</td>
<td>Université Cheikh Anta Diop Sub-division of the Senegalese Ministry of Health. Responsible for maternal/newborn and reproductive health (excluding HIV/AIDS).</td>
<td>Yes (through collaboration with USAID CA)</td>
<td>Epidemiological research on abortion; operations research on PAC services; clinical research on MVA.</td>
<td>Early 1990s to present</td>
</tr>
<tr>
<td>Division de la Santé de la Reproduction (Division of Reproductive Health)</td>
<td>Sub-division of the Senegalese Ministry of Health. Responsible for maternal/newborn and reproductive health (excluding HIV/AIDS).</td>
<td>Yes (through collaboration with USAID CA)</td>
<td>Operations research on PAC; training and supervision of health professionals; monitoring and evaluation of national PAC program; elaboration of norms and protocols related to PAC; authorization and supervision of MVA utilization.</td>
<td>1997 to present</td>
</tr>
<tr>
<td>Child Fund International</td>
<td>US NGO, infant and child health</td>
<td>Yes (CA)</td>
<td>Community-based approach to PAC.</td>
<td>2006 to present</td>
</tr>
<tr>
<td>EngenderHealth</td>
<td>US NGO, reproductive health</td>
<td>Yes (CA)</td>
<td>Operations research on PAC.</td>
<td>2000-2002</td>
</tr>
<tr>
<td>Gynuity Health Projects</td>
<td>US NGO, reproductive health technology</td>
<td>No</td>
<td>Operations research on Misoprostol for PAC at one hospital; national operations research project on Misoprostol for PAC.</td>
<td>2008-2009, 2012 to present</td>
</tr>
<tr>
<td>Intrahealth</td>
<td>US NGO, reproductive health</td>
<td>Yes (CA)</td>
<td>Operations research on PAC; training and supervision of health professionals in PAC</td>
<td>2002-2003;2006 to present</td>
</tr>
<tr>
<td>Ipas</td>
<td>US NGO, comprehensive abortion care</td>
<td>No</td>
<td>Supported national situational analysis on unsafe abortion and unwanted pregnancy; supported PAC training in two regions. Donated MVA material to</td>
<td>2008 to present</td>
</tr>
</tbody>
</table>

\(^{19}\) Contracting Agency
<table>
<thead>
<tr>
<th>Organization</th>
<th>Type</th>
<th>Support</th>
<th>Activity</th>
<th>Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>JHPIEGO</td>
<td>US NGO, reproductive health</td>
<td>Yes (CA)</td>
<td>Operations research on PAC</td>
<td>1997-1998</td>
</tr>
<tr>
<td>Management Sciences for Health</td>
<td>US NGO, public health</td>
<td>Yes (CA)</td>
<td>Operations research on PAC; training and supervision of health professional in PAC</td>
<td>2003-2006</td>
</tr>
<tr>
<td>Marie Stopes International</td>
<td>UK NGO, family planning and abortion</td>
<td>No</td>
<td>Provision of PAC services</td>
<td>2011 to present</td>
</tr>
<tr>
<td>UNFPA</td>
<td>United Nations</td>
<td>No</td>
<td>Technical guidance; support for operations research; support for PAC activities and supplies in selected regions.</td>
<td>1997 to present</td>
</tr>
<tr>
<td>USAID</td>
<td>US Department of State</td>
<td></td>
<td>Financial and technical support for PAC operations research, monitoring and evaluation, supervision, and training of health professionals. USAID does not support the purchase of MVA.</td>
<td>1997 to present</td>
</tr>
<tr>
<td>WHO</td>
<td>United Nations</td>
<td>No</td>
<td>Technical guidance</td>
<td>1997 to present</td>
</tr>
</tbody>
</table>