

**The Influence of Abortion Legality Knowledge on Abortion Provision and Referral  
Practices among Reproductive Healthcare Providers in Lomé, Togo**

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## **Abstract**

Despite the significant contribution of unsafe abortion to maternal morbidity and mortality, including accounting for 13 percent of maternal mortality and resulting in 5 million years of productive life lost, it continues to be understudied in contexts of limited legality and high regional stigma. One such context is the capitol city of Lomé, Togo, wherein the majority of induced abortions are performed by untrained providers and by non-recommended methods. Providers have been identified as facilitators and barriers to safe abortion services, and their opinions and provision practices regarding safe abortions can be influenced by knowledge of legality. This influence is complicated under ambiguous circumstances of legality, such as is the case in Togo; while *de jure* legality includes circumstances of rape, incest, fetal malformation, and risk to the life of the woman, there is little implementation, and articles outlining application have never been issued. As such, understanding Lomé reproductive health care providers' knowledge of abortion legality and how legality knowledge influences provision and referral practices may have implications for women's health. Surveys with 60 reproductive health care providers from four healthcare settings in Lomé, Togo, were analyzed to understand this relationship through the lens of the Social Cognitive Theory. Results of this analysis indicate that provider knowledge of legality is low, with the exception of knowledge of the circumstance of fetal malformation; that increased legality knowledge is associated with professions of OBGYN and medical assistant; and that age, profession of medical doctor including OBGYN, and knowledge of the rape circumstances of legality are associated with referral practice. Recommendations include institutionalization of legality education in association with comprehensive abortion care and post-abortion care, comprehensive education at all provider levels, and expansion of abortion legality.

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## 1. Introduction

In 2008, the World Health Organization estimated that 47,000 women died as the result of an unsafe abortion procedure,<sup>1</sup> representing 13 percent of all maternal mortality worldwide.<sup>2</sup> Indeed, reduction of maternal mortality has been a global target to the extent of being included as a Millennium Development Goal. However, the target to reduce maternal mortality by three-quarters by the end of 2015 was widely unmet, resulting in the current inclusion of reduction of maternal mortality in the Sustainable Development Goals. Even more, many women experienced complications from unsafe abortion that may have resulted in short or long-term morbidity, including infertility.<sup>3-5</sup> Globally, unsafe abortion is responsible for about 14 percent of all DALYs lost from maternal conditions, totaling approximately 5 million years of productive life.<sup>6</sup> These likely underestimate the true burden of unsafe abortion, given the continuing challenge of underreporting.<sup>7</sup> This burden of unsafe abortion is entirely preventable if women are given access to safe and legal abortion services. However, in countries where induced abortion remains legally restricted, provider knowledge of the legal circumstances of induced abortion and provider knowledge of safe abortion methods that can improve women's abortion-related health outcomes.<sup>8</sup>

Due to lack of family planning access and uptake, Africa has the highest unplanned pregnancy rate in the world, and an estimated 26 percent of pregnancies in the West African region are unplanned.<sup>9</sup> Of these, 36 percent end in induced abortion.<sup>9</sup> In Togo, a small West African country with high gender inequality,<sup>10</sup> restrictive abortion laws,<sup>11</sup> and high regional stigma against abortion,<sup>12</sup> little is known about abortion-related practices. Despite the lack of recent and reliable research on abortion rates, it is likely

that the rate of induced abortion in Togo is relatively high given that 34 percent of women's contraceptive need is unmet,<sup>6,12</sup> and abortion is legally restricted and generally inaccessible.<sup>12</sup> As a result, unsafe abortion is likely a large contributor to the high national maternal mortality ratio of 401 maternal deaths per 1,000 live births.<sup>13</sup> Little research has been done in Togo on maternal mortality due to unsafe abortion, especially the barriers to access of safe abortion services at the health systems level. However, healthcare providers have been identified as facilitators and as sources of barriers to safe abortion services in other settings and contexts in Africa and elsewhere.<sup>8,12,14,15</sup> To fill this research gap, this analysis will examine provision of abortion services and referral to abortion services by reproductive healthcare providers in four clinical settings in Lomé, Togo. This work will have implications for understanding the context of abortion in Togo.

## **2. Review of the Literature**

Globally, 21.6 million unsafe abortions are performed each year.<sup>2</sup> Unsafe abortions account for 49 percent of all abortions worldwide,<sup>2</sup> and 97 percent of all abortions in Africa.<sup>16</sup> The World Health Organization estimates that in 2008, 14 of every 1000 women ages 15-44 years had an unsafe abortion, totaling 47,000 maternal deaths.<sup>1</sup> Many of these occurred in Africa.<sup>1</sup> In Sub-Saharan Africa, the abortion case fatality rate is 460 per 100,000 unsafe abortions, more than twice the worldwide rate of 220 per 100,000.<sup>2</sup> Furthermore, the risk of dying due to an unsafe abortion is three times higher in Africa than in Asia, and more than 15 times higher than in Latin America. And while globally the occurrence of unsafe-abortion mortality declined by one-third between 1990 and 2008, Africa saw a decline of less than half that, at only 15 percent.<sup>17</sup>

Unsafe abortion is defined by the World Health Organization as “a procedure for terminating a pregnancy carried out by persons lacking the necessary skills or in an environment that does not conform to minimal medical standards, or both,”<sup>18</sup> though more recent definitions group abortions in “less safe” (carried out by a trained provider by a non-recommended method *or* by an untrained provider using a recommended method), and “least safe,” (carried out by an untrained provider using a non-recommended method).<sup>19</sup> Even by this definition, almost all unsafe abortions in Africa fall within the “least safe” category.<sup>19</sup> These procedures can result in complications that include hemorrhage, sepsis, peritonitis, organ damage, or trauma,<sup>3-5</sup> and that can lead to death. Between 20 and 50 percent of unsafe abortions result in hospitalization for complications,<sup>20</sup> accounting for approximately seven million hospitalizations worldwide each year.<sup>21</sup>

Despite the known high incidence and burden of unsafe abortion, the practice remains understudied.<sup>22</sup> This gap in knowledge is particularly salient in countries with restrictive abortion laws, where most abortions are both unsafe and clandestine, making recording of abortion incidence difficult. Research in these contexts is most needed, given that women face worse health outcomes in contexts where abortion is illegal and inaccessible,<sup>3</sup> and that countries with restrictive abortion laws have a maternal mortality rate that is, on average, three times that of countries without restrictive abortion laws.<sup>11</sup> One such country is Togo, located in West Africa.

### *Togolese Context*

Home to just under eight million people, Togo is ranked as having low human development and high gender inequality, as measured respectively by the UN

Development Programme Human Development Index and Gender Inequality Index.<sup>10</sup>

Overall, there is absence of data on the incidence of induced abortion and abortion-related mortality in Togo. No national monitoring of abortion cases occurs, a common problem in countries where abortion is illegal or restricted,<sup>23</sup> and the DHS abortion module has never been administered.<sup>24</sup> The data that are available are neither recent nor reliable. Studies conducted at two and three family planning clinics in the Togolese capital of Lomé in 1995 and 1998, respectively, estimated that 27 percent and 24 percent of women of child-bearing age surveyed had terminated a pregnancy.<sup>25</sup> In 2000, a study of women who had been pregnant at least once found that 28 percent of women had had an abortion,<sup>26</sup> while a 2002 study in Lomé found that 33 percent of women of child-bearing age who had been pregnant before had undergone an abortion, as had 39 percent of those age 15 to 24.<sup>27,28</sup> More recent analyses have used data from 1998 and 2002,<sup>29</sup> or have involved mathematic estimates.<sup>30</sup> It is likely that none of these are representative of the true incidence of abortion, as even in countries with legal abortion underreporting is frequent due to stigma and disapproval by social figures.<sup>31,32</sup> Furthermore, trends seem to indicate an increase in the occurrence of abortion in Sub-Saharan African cities in recent years,<sup>29</sup> increasing the likelihood that available estimates are severe underestimates of the current state of abortion in Togo, given their age.

Currently, induced abortion in Togo is legal to protect the physical health of a woman, in cases of fetal impairment, and under circumstances of rape or incest.<sup>11</sup> Under all other circumstances, induced abortion is considered a criminal act for the woman, the provider, and any person who assists.<sup>33</sup> Until 2006, induced abortion was only legal in Togo when the life of the mother was at risk, under the French colonial criminal code



enacted in 1920.<sup>29</sup> The liberalization of Togolese abortion law made progress towards consonance with African Union-outlined legality of abortion under the Protocol to the African Charter on Human and Peoples' Rights on the Rights of Women in Africa. Better known Maputo Protocol, the Charter was adopted in 2003 and recognizes the right to an abortion under the circumstances accepted under current Togolese law, and additionally when the mental health of the mother is at risk.<sup>34</sup> The Maputo Protocol was the first international treaty to recognize the right to abortion, and was ratified by Togo, but not fully integrated; Togo chose to withhold the right to induced abortion on the grounds of the mental health of the woman.<sup>35</sup> Despite the passage of over ten years since the onset of liberalization of Togolese abortion law, knowledge of the law in the capitol city, Lomé, is very low,<sup>36</sup> and implementation and application of the law is reported to be nonexistent.<sup>12,37</sup> However, there is no documentation of changes in knowledge regarding legality or the impact of changes to legality upon attitudes towards abortion. Furthermore, articles outlining legality and circumstances of application have never been issued, adding to the reluctance of some to perform abortions regardless of legality.<sup>12</sup>

Referral to abortion services brings an additional dynamic to facilitation of abortion access in complex legal contexts. Where any abortion legality exists, there is the argument for conscientious objection to providing abortion services, which should lead to referral to safe and legal services from another provider. However, at times conscientious objection occurs without referral to services at another point of access, driving women to seek unsafe or less safe services. The World Health Organization has stated that “allowing conscientious objection without referrals on the part of health-care providers and facilities” is a major barrier to access to safe abortion services in contexts of

legality.<sup>38</sup> Legality remains unclear in Togo regarding conscientious objection;<sup>33</sup> however, given the high regional stigma in respect to abortion, and the anti-abortion influence of religiosity Togo, conscientious objection likely exists in practice. Whether or not referral exists under these circumstances is unclear.

While family planning use is widely accepted as decreasing the number of unplanned and unintended pregnancies, and thereby, the number of pregnancies that end in abortion, contraceptive uptake is currently insufficient in Togo; the prevalence rate of modern contraceptive methods is only 23.2 percent as of 2017, and less than half of Togolese facilities are stocked with a modern method of contraception, contributing to the estimated 133,000 unintended pregnancies in Togo in 2017.<sup>39</sup> There is also little-to-no access to misoprostol, medication that can be used to safely induce a medical abortion, in either health centers or pharmacies in the Togolese capitol of Lomé.<sup>12</sup> Therefore, a common “less safe” rather than “least safe” method of self-induced abortion is similarly unavailable to Togolese women.<sup>19</sup>

Given the circumstances of limited access to family planning services, lack of medical abortion medication, and unwillingness of providers to perform services or refer women to services, Togolese women are forced to continue to seek unsafe abortions, even if they qualify for services that are legal and should be safely accessible to the extent of the law.<sup>40</sup> Many such abortions are performed either by untrained abortion providers or by pregnant women themselves.<sup>5</sup> Of all abortions in Togo, about 36 percent occurred at home and 24 percent through local practitioners, both via non-medical methods.<sup>36</sup> Moreover, while approximately 40 percent of abortions occurred in a healthcare center and were completed by medical staff, half of these cases had previously

attempted to terminate the pregnancy by non-medical methods.<sup>36</sup> Given these unsafe methods, Togo likely faces a similar burden as Sub-Saharan Africa as a whole, wherein the risk of dying from an abortion procedure is more than 800 times higher than that for a legal abortion performed in the United States.<sup>17</sup>

Provision of abortion by medically qualified providers is essential to reduce morbidity and mortality due to unsafe abortion in Togo and globally. However, providers face challenges of stigmatization and fear of legal ramifications, particularly in contexts where the legality of abortion is not made publicly clear, where there is no overt institutional support for abortion provision under legal circumstances, and where religious and social norms are against abortion.<sup>15,41</sup> All of these are the case in Togo.<sup>12</sup> These challenges can lead to unwillingness to perform safe abortion services even when providers are capable of doing so, and an unwillingness to refer women to services. Similarly, lack of knowledge of legality, in combination with social and religious stigma, leads to clandestine abortions that are self-induced or carried out by untrained providers.<sup>14,15</sup> In Ghana, increased abortion legality knowledge was associated with safe abortion provision among those with clinical knowledge of abortion and post-abortion care (PAC) methods,<sup>8</sup> while those who knew the abortion law in Ethiopia were significantly more likely to have favorable attitudes about safe abortion.<sup>42</sup>

### *Theoretical Framework*

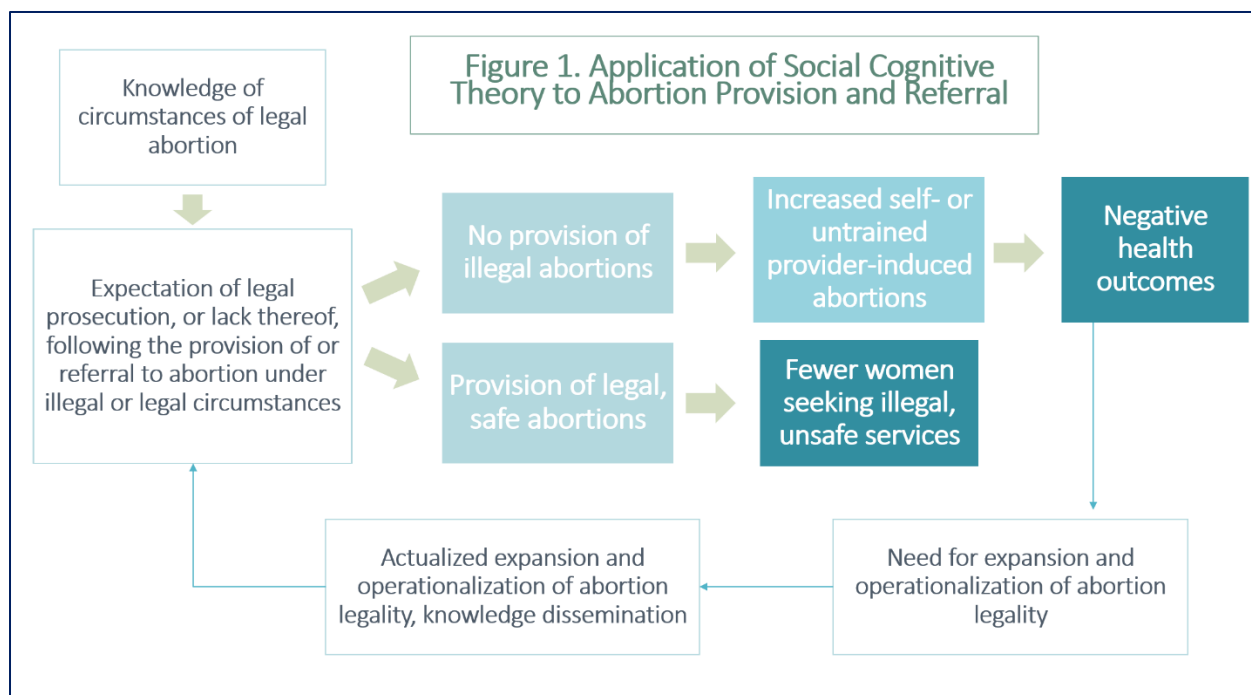
To understand the abortion service provision and referral behaviors of reproductive healthcare providers in Lomé, Social Cognitive Theory (SCT) will be applied as a theoretical framework. Developed in 1986 by Albert Bandura, and derivative of Bandura's Social Learning Theory, Social Cognitive Theory posits that

socioenvironmental factors, personal cognitive factors, and behavioral factors all influence and are influenced by one another, termed reciprocal determinism and resulting in an actualized behavior.<sup>43</sup> In addition to reciprocal determinism, Social Cognitive Theory includes five other constructs: observational learning, reproduction of actions after witnessing others perform them; reinforcements, internal or external responses to a behavior that may positively or negatively influence the continuation of them; self-efficacy, an individual's confidence in their ability to perform a behavior; behavioral capability, the actual ability to perform a behavior through possession of essential knowledge and skills; and, outcome expectations, the anticipated consequences of the individual's behavior.<sup>43</sup> Behaviors are the outcome of the interaction of these constructs.

Each of these constructs can be operationalized to understand abortion facilitation in a context of limited legality. Witnessing other providers perform abortion services or refer women to abortion services may serve as a cue to replicate the behavior, via observational learning. Praise or thanks for abortion facilitation, either from supervisors, patients, or on an organizational level would offer positive reinforcement, leading to more facilitation or services, while censure by the same means would deter practice of the behavior via negative reinforcement. Self-efficacy would represent a provider's self-evaluation as capable of facilitating abortion services. For this analysis, we will employ the constructs of behavioral capability and expectation outcomes. Behavioral capability will be operationalized as the knowledge of circumstances of legal abortion, hypothesized to facilitate the practice of legal abortion and referral to them and to deter the practice of illegal abortions and referral to them. Outcomes expectations operates based on this knowledge of legality, with the expectation of legal prosecution following the provision

of or referral to abortion under illegal circumstances, and a lack of legal prosecution following the provision of or referral to abortion under legal circumstances.

Given the restricted legality and lack of knowledge regarding legality, we expect that the majority of abortions occurring in Togo are illegal. Therefore, provision of or referral to abortion services is expected to decrease with increased knowledge of abortion legality, in an attempt to avoid legal repercussions. This would account for the high number of abortions that are self-induced or that untrained providers perform, as trained providers with knowledge of the law would not be willing to perform the abortion. Further, this would demonstrate the need to make clear and operationalize the *de jure* abortion legality of Togo, so that providers are comfortable performing abortions under legal circumstances. However, women will likely continue to seek illegal abortions, and will be forced to seek unsafe services due to the lack of willingness of trained and legality-educated providers. The solution to this would be liberalization of abortion legality, with full operationalization and dissemination of knowledge; again following the present hypothesis, this would lead to increased knowledge of legal circumstances of abortion, and willingness to perform or refer under them due to anticipation of *not* having legal repercussions for doing so. This would result in fewer women who do not have legal access to services and must resort to less or least safe methods due to trained provider unwillingness (Figure 1).



While no literature discusses abortion and provision in the context of Social Cognitive Theory, many of the identified relationships fit into the SCT framework. Stigmatization of abortion provision and lack of overt institutional support for legal abortion provision<sup>15,41</sup> are known to act as negative reinforcements for abortion provision, both knowledge of methods of provision and knowledge of legal circumstances of abortion positively influence the provision of safe abortions,<sup>8</sup> as aligns within the construct of behavioral capability. Legal knowledge can be considered to influence outcome expectations of the provision of induced abortions under legal or illegal circumstances, specifically prosecution or lack thereof. Therefore, it follows that the provision of safe and legal abortions would increase with increased knowledge of legality, as was the case in Ghana.<sup>8</sup>

While not informed by a Social Cognitive Theory framework, the example of increased abortion knowledge following expanded legality in Colombia provides an explanatory pathway for application of this theory in the context of Togo. In 2006, Colombia liberalized its abortion laws to include legal services under the circumstances of rape or incest, risk to a women's health or life, and fetal malformation incompatible with life- the same circumstances under which induced abortion became legal in Togo in 2006.<sup>44</sup> While knowledge of circumstances of legal abortion in Togo remains low following the expansion of legality,<sup>36</sup> in Colombia the organization La Mesa por la Vida y Salud de las Mujeres (La Mesa) mobilized to inform health providers and disseminate knowledge. Their intervention consisted of the following: the publication of clear reports reviewing the criminal status of abortion, court decisions from national and international courts regarding abortion, gestational term limits, contentious objection, and each of the cases of legal abortion; more than 30 workshops on abortion legality throughout the country for judicial officers, community leaders, health sector workers, women's organizations, and sexual and reproductive health organizations, totaling more than 1,000 trained participants; and, 17 workshops on the health exception for lawyers, healthcare providers, medical students, and others.<sup>44</sup>

The ultimate outcome of La Mesa's efforts was providers appropriating legal knowledge regarding abortion. This outcome equipped providers with the necessary knowledge to have the behavioral capability to perform legal abortions. However, by facilitating this gain of knowledge, La Mesa's greatest success was impressing upon providers that they would not face criminal prosecution for the provision of abortions under legal circumstances.<sup>44</sup> By contrast, the opposite also must be true- that providers

understood that they were at risk of being prosecuted if they performed abortions under illegal circumstances. In both circumstances, providers had specific outcome expectations regarding the provision of abortion services, influenced by their knowledge of legality.

The measurable outcome of this intervention and overall knowledge dissemination is well recorded: at one Colombian nongovernmental organization, Oriéntame, there were a total of seven abortion requests in 2006, 28 percent of whom invoked the health exception, while in 2011 and 2015 respectively, 99 percent of the 4,066 and 8,897 cases were based on the health exception; another clinic, Profamilia, saw 98 to 100 percent of abortion requests based on the health exception between 2011 and 2015, and La Mesa itself aided in obtaining services for almost 1,000 women, 74 percent of whom invoked the health exception and 14 percent the rape exception.<sup>44</sup> This success, however, was contingent upon the operationalization of abortion legality and dissemination of information regarding abortion legality, as well as institutional support. In the Togolese context, none of these are present- only *de jure* legality of specific circumstances. This may create hesitance to perform services or refer women to services, as seen in pre-expansion Colombia.

There have been other instances of liberalization of abortion legality in countries that are more contextually similar to Togo, particularly in Sub-Saharan Africa. In South Africa, abortion legality liberalization was institutionalized in public healthcare facilities, and resulted in a marked reduction in maternal mortality. However, it is unclear what form provider education took within that institutionalization, and to what extent it influenced the decrease in negative health outcomes.<sup>45</sup> Ethiopia likewise underwent recent legality liberalization, but it is unclear if knowledge dissemination occurred.



Comprehensive guidelines were issues regarding abortion legality, such as in Colombia, but stakeholder interviews have suggested that provider knowledge of legality is low, indicating that this may be an important factor in the success of Colombia's implementation; the impact in Ethiopia remains unclear due to lack of data.<sup>45</sup> While most research on these liberalizations has focused on level of knowledge among women who may be seeking abortions, there is little on provider knowledge, despite the prohibitive or catalytic ability of a provider; further, research seems to assume that women's knowledge is the first barrier to access- however, knowledge of availability of access matters little without actualized access facilitated by providers, and *their* knowledge of legality. In an assessment of liberalization processes in six countries with varying contexts, the Guttmacher Institute recognizes as much in their first recommendation: "Countries should use strategic approaches to inform the public (and health providers, in particular) not just that restrictions on abortion have been eased but also who is eligible, where legal services can be obtained and which health professionals provide them."<sup>45</sup>

Given that knowledge of abortion legality influences attitudes toward and provision of safe abortion in other contexts, the limited legality and lack of clarity regarding legality of abortion in Togo, and the suspected high rate of unsafe abortion in Togo and documented burden of morbidity and mortality of unsafe abortion worldwide, this research seeks to analyze the relationship between knowledge of abortion legality, provision of abortion, and willingness to refer a woman to abortion services among providers at four clinical settings in Lomé, Togo.

### 3. Methods

#### *Parent Study*

To address this area of needed research, a research team from Emory University funded by the Emory Global Health Institute and the Global Elimination of Maternal Mortality from Abortion (GEMMA) Fund spent ten weeks in Lomé, Togo conducting a parent study, with four objectives, to:

- I. Characterize the burden of maternal deaths in Lomé, Togo that are due to unsafe abortion
  - a. *Estimate the prevalence of maternal mortality due to unsafe abortion in Lomé*
  - b. *Understand the common short term and long-term health complications that result from unsafe abortions in Togolese women in Lomé*
  - c. *Determine common maternal risk factors for maternal death due to unsafe abortion*
  
- II. Understand under what circumstances women perform unsafe abortions in Lomé.
  - a. *Describe under what circumstances unsafe abortions are performed in Togolese women of childbearing age in Lomé, Togo.*
  - b. *Examine where women commonly seek abortion services*
  - c. *Investigate the common methods that are used to perform unsafe abortions*
  
- III. Understand women's perspectives on abortion legality in Lomé, Togo.
  - a. *Assess women's knowledge of the current abortion law in Togo.*
  - b. *Describe under what circumstances women deem it appropriate to seek an abortion*
  - c. *Understand the barriers women face to seeking safe abortions*
  
- IV. Examine medical providers' perspectives on abortion legality in Lomé, Togo.
  - a. *Assess medical providers' current understanding of the abortion law in Togo*
  - b. *Understand under what circumstances medical providers deem it appropriate to seek an abortion*
  - c. *Assess medical providers' knowledge of safe abortion techniques*
  - d. *Understand the barriers preventing medical providers from practicing safe abortions*

Our team sought to accomplish these objectives through the following methods: quantitative surveys with women seeking reproductive care, quantitative surveys with

providers of reproductive care, qualitative interviews with women seeking reproductive care, qualitative interviews with providers of reproductive care, and medical record review. The present analysis represents a secondary analysis of data collected during the parent study, utilizing data from the quantitative surveys with providers of reproductive care.

### *Procedure*

We recruited participants from four hospitals and clinics in and surrounding Lomé, Togo: CHU Sylvanus Olympio Lomé, CHR Lomé Commune, CMS de Bè, and the Togolese Association for Familial Wellbeing (ATBEF), an International Planned Parenthood-associated clinic. At each clinic, the project team sought responses from 15 healthcare providers in the departments of obstetrics and gynecology, including specific clinic spaces for family planning, prenatal, and gynecological consultations.

Partner midwives at each clinic or hospital facilitated recruitment of reproductive healthcare providers, by identifying providers with available time who met the inclusion criteria. Inclusion criteria include the following: current profession as a medical professional who provides reproductive care, including as a general practitioner, OBGYN, specializing OBGYN, intern, midwife, nurse, student midwife, or other health professional within the Department of Gynecology and Obstetrics, and proficiency in French.

Before starting the survey, we gave providers a French-language consent form approved by the Togolese Ethics Committee (Committee de Bioethique et Recherche Scientifique). As judged by the Emory University Institutional Review Board, this project was not “research” as the goal was to better the health of Togolese women and Togolese

healthcare, and the data is not meant to be generalizable. Therefore, this project did not require Emory IRB approval. However, the team followed the standards for informed consent. We asked participants to read over the consent form; after reading it, we asked if they understood the content of the consent form, if they had any questions, and finally if they would like to participate in the research. Participants who consented were asked to sign and date the consent form, then given a blank copy of the consent form to keep. We did not offer participants any remuneration for their participation.

We gave providers a 24-item self-administered survey with questions relating to demographics, professional experiences related to abortion, medical training related to abortion, practice of abortion, knowledge of abortion legality, and knowledge of methods of safe abortion and post-abortion care provision. We piloted the instrument with midwives at the private reproductive healthcare clinic and revised for clarity prior to the start of data collection.

We conducted all surveys in French, in provider-restricted locations in the clinic or hospital, including break rooms and offices. We handed paper surveys to the health care provider to complete while supervised, ensuring that the survey was completed and returned. Survey administrators answered any questions relating to the wording of the survey, to the extent that they were not giving the survey respondent additional knowledge or influencing opinions.

All survey data were de-identified, coded, and the paper copies destroyed upon leaving Togo. We stored de-identified data on a password protected encrypted server, and then transferred data to a password protected, secure Emory drive.

*Measures*

Provision of abortion over the past twelve months was assessed by the question “Have you practiced an abortion in the past twelve months?” with response options yes and no. Willingness to provide or refer to abortions services was assessed by asking “If you either cannot or do not want to practice an abortion, do you know where to send a women for this service?” with response options “Yes, I know where to find this service, and I would send a woman to this service,” “Yes, I know where to find this service, but I would not send a woman to this service,” and “No, I do not know where to find this service.”

We assessed knowledge of abortion legality by the statement “To your knowledge, abortion is legal in Togo under the following circumstances,” followed by a series of nine statements describing a circumstance of abortion. Respondents selected a response “yes” or “no” for each circumstance. Example statements included “If the woman wants to continue her studies” and “If the pregnancy is the result of incest.” Due to a recent situational assessment in which rape, incest, and fetal malformation were identified as the circumstances under which legal induced abortions have been known to be sought in Togo, these circumstances were included as the true statements.<sup>12</sup>

To understand knowledge of legality among service providers in Lomé, we analyzed the nine-question series in multiple formats. First, using all nine questions, we summed the number of correct answers to create a scale ranging from 0 to 9, where 0 equals “No Knowledge of Abortion Legality,” and where 9 equals “Sufficient Knowledge of Abortion Legality.” Second, using only the three variables that were true circumstances of legality, we assigned participants to a category based on the number of true circumstances

they identified, from zero to three of three circumstances. This did not have adequate distribution across categories, and therefore was only used for bivariate analysis (Table A1). Finally, we analyzed each surveyed true circumstance of legality (rape, incest, and fetal malformation) as an independent variable.

Finally, demographic variables assessed include gender, age, profession at the time of interview, and number of years in profession.

For analysis, we collapsed the demographic variable “profession” into the following categories: Medical Doctor (N=12), Midwife (n=28), and Allied Health Professionals (n=20). Other variables were analyzed in the following formats: gender (dichotomous, man/woman), age (continuous), years worked (continuous), abortion provision in the past 12 months (dichotomous, yes/no), referral (categorical, would refer/would not refer/don’t know where).

### *Statistical Analysis*

The goal of the analysis was to examine the relationship between knowledge of the legality of abortion and provider-mediated access to abortion. This goal manifested in three aims:

Aim 1. Describe provider knowledge of Togolese abortion legality among participants.

Aim 2. Assess the relationship between knowledge of Togolese abortion legality and provision of abortion within the past twelve months among participants.

Aim 3. Examine the relationship between knowledge of Togolese abortion legality and willingness to refer women to abortion services among participants.

To begin, we conducted univariate analysis to describe all independent, dependent, and demographic variables. Then, we conducted bivariate analysis to describe unadjusted associations between dependent variables and the demographic variables, and the independent and dependent variables. Tests used for bivariate analysis include Independent T-Tests (age by abortion provision, years worked by abortion provision), One-Way ANOVAs (age by referral, years worked by referral), and Chi-Square tests (gender by abortion provision, gender by referral, profession by abortion provision, profession by referral, referral by abortion provision). We conducted bivariate analyses for independent variables with demographic variables in Aim 1.

For Aim 1, we first assessed the distribution of legality knowledge scale score visually using a histogram. To assess reliability of the measure as a scale, we performed a reliability analysis resulting in a Cronbach's Alpha. To assess significant differences in legality knowledge scale score across demographics, we used Pierson's Correlation (age, years worked), T-Tests (gender, abortion provision), and One-Way ANOVAs (profession, referral practices). We also looked at the distribution of knowledge regarding each individual circumstance of legality, and knowledge of single versus multiple circumstances of legality.

For Aim 2, we performed a series of binary logistic regressions to assess abortion provision in the past 12 months, first with the abortion knowledge legality score alone, then with demographic variables (age, profession, and years worked) alone, followed by legality

knowledge and demographic variables together, and finally, legality knowledge, demographic variables, and referral practices in the full model. Gender was not included as a demographic variable due to the small number of participants who identified as men. We used dummy variables to collapse the profession category into “Medical Doctor” (generalists and OBGYNs), “Midwife,” and other “Allied Health Professionals,” and used Allied Health Professionals as the reference category.

As an alternative indicator to the abortion legality knowledge scale, we assessed provision across knowledge of legality under three specific circumstances of rape (y/n), incest (y/n), and fetal malformation (y/n), again using separate binary logistic regression models.

For Aim 3, we asked participants to consider a circumstance in which they would not or could not provide abortion services to assess the referral characteristics of providers. With this in mind, we asked if they knew where to find abortion services, and if they did, whether they would refer a woman to these services. We performed multinomial logistic regressions with three outcome categories, with dummy variables used to represent categories of profession, and with the category “No, I do not know where to find this [induced abortion] service” as the reference category. First, we analyzed referral using the legality knowledge scale score. Then, we created models included only knowledge of legality under the circumstances of rape and incest, to understand the impact of specific knowledge on referral practices. Fetal malformation was not included due to low distribution across categories.



All statistical analyses were performing using SPSS Statistical Analysis Software.<sup>46</sup> Significance was established using a cut point of  $p < 0.05$ , with  $p < 0.10$  indicating marginal significance. We present logistic regression results as exponentiated beta values and 95 percent confidence intervals, and the  $R^2$  or Pseudo  $R^2$  value of the model.

#### 4. Results

##### *Demographics*

Most survey respondents were women (90.0%), averaging 33.05 years of age (SD=33.05). The largest group of providers were midwives (46.7%), followed by generalist doctors (13.3%), and birthing attendants (10.0%). Providers had worked 7.71 years, on average, in their current capacity (SD=7.27) (Table 1). Only five of the 60 participants (8.8%) had provided an abortion in the past 12 months, though there were no statistically significant associations between demographic characteristics and abortion practice behavior (Table 2). Of the 57 respondents who answered questions regarding referral, 21 (36.8%) of participants both knew where to locate abortion services and would refer a woman to those services. Eight providers (14.0%) knew where to locate abortion services but would not refer a woman; the remaining 49.1 percent of respondents did not know where to locate abortion services (Table 1). There were no statistically significant associations between referral behavior and demographic characteristics (Table 2).

<b>Table 1. Univariate: Independent Variables and Demographics</b>	
Variable	N (%) or Mean (SD)
Gender	
Man	6 (10.0%)
Woman	54 (90.0%)

Age	33.05 (9.64)
Profession	
OB-GYN	4 (6.7%)
Intern	3 (5.0%)
Midwife	28 (46.7%)
Birthing Attendant	6 (10.0%)
Medical Assistant	3 (5.0%)
Generalist Doctor	8 (13.3%)
Midwife Student	3 (5.0%)
Other	4 (6.7%)
Years Worked	7.71 (7.27)
Provision in Past 12 Months	
Yes	5 (8.8%)
No	55 (91.7%)
Do you know where to refer a woman for abortion services? ^	
Yes, and I would refer her	21 (36.8%)
Yes, but I would not refer her	8 (14.0%)
No, I do not know where to refer	28 (49.1%)

^ Only 57 respondents answered the question regarding referral.

\* denotes a statistically significant result,  $p > 0.05$

† denotes a marginally statistically significant result,  $p > 0.10$

Table 2. Bivariate: Demographics by Independent Variables			
<i>Provision in Past 12 Mo.</i>	Yes	No	P-value
	n (%)	n (%)	
Gender			0.436

Man	1 (1.67%)	5 (5.0%)			
Woman	4 (6.7%)	50 (83.33%)			
Age	34.80 (5.26)	32.89 (9.96)		0.106	
Profession				0.516	
OB-GYN	1 (1.67%)	3 (5.0%)			
Intern	0	3 (5.0%)			
Midwife	3 (5.0%)	25 (41.67%)			
Birthing Attendant	0	6 (10.0%)			
Medical Assistant	1 (1.67%)	2 (3.33%)			
Doctor	0	8 (13.33%)			
Midwife Student	0	3 (5.0%)			
Other	0	4 (6.7%)			
Years Worked	8.60 (5.32)	7.63 (7.46)		0.641	
Referral				0.106	
Would Refer	4 (6.7%)	17 (28.33%)			
Would Not Refer	0	8 (13.33%)			
Don't Know Where	1 (1.67%)	2 (3.33%)			
	<i>Referral</i>	Would Refer	Would not Refer	Don't Know Where	P-value
Gender					0.884
Male	2 (3.33%)	1 (1.67%)	2 (3.33%)		
Woman	19 (31.67%)	7 (11.67%)	26 (43.33%)		
Age	33.14 (8.52)	28.38 (6.84)	34.50 (10.53)		0.275
Profession					0.402
OB-GYN	2 (3.33%)	1 (1.67%)	1 (1.67%)		

Intern	0	0	3 (5.0%)	
Midwife	11 (28.3%)	2 (3.33%)	14 (23.3%)	
Birthing Attendant	1 (1.67%)	1 (1.67%)	3 (5.0%)	
Medical Assistant	2 (3.33%)	0	1 (1.67%)	
Doctor	2 (3.33%)	3 (5.0%)	2 (3.33%)	
Midwife Student	0	1 (1.67%)	2 (3.33%)	
Other	2 (3.33%)	0	2 (3.33%)	
Years Worked	8.00 (7.57)	5.88 (4.73)	8.09 (7.70)	0.739

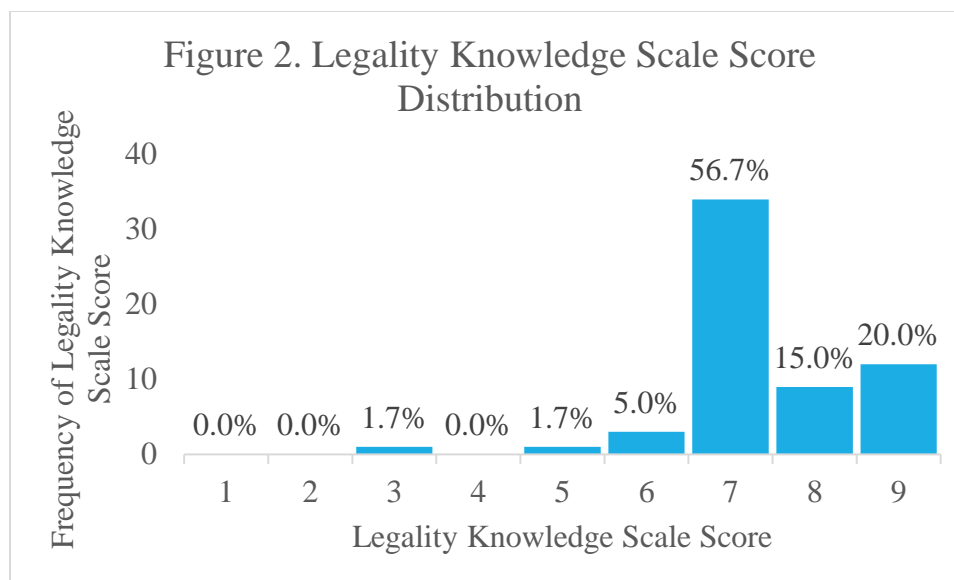
Statistical Tests: Chi-Square (Gender x Provision, Profession x Provision, Referral x Provision, Gender x Referral, Profession x Referral), Independent Sample T-Test (Age x Provision, Years Worked x Provision), ANOVA (Age x Referral, Years Worked x Referral)

\* denotes a statistically significant result,  $p > 0.05$

† denotes a marginally statistically significant result,  $p > 0.10$

### *Aim 1 Results*

Knowledge of the circumstances of abortion legality in Togo varied widely among service providers. Providers were given nine circumstances, and asked to identify, to the best of their knowledge, under which a woman is legally allowed to seek an abortion. Most providers correctly identified the state of legality regarding seven of the nine circumstances. However, only 20 percent were able to correctly identify the state of legality of all circumstances (Figure 2). When we examined for reliability, the scale had low reliability (Cronbach's Alpha= 0.461), indicating that it is not representative of a greater construct.



Legal knowledge measured using the legality scale did not vary statistically significantly across age, provision within the past 12 months, or referral behavior (Table 3). However, there was a statistically significant difference in legality scale score by gender, where women providers had a higher average abortion legality knowledge score than men, and a marginally significant difference by profession, where OBGYNs and medical assistants had on average a higher abortion legality knowledge score than other providers (Table 3). We additionally performed analysis of by category of knowledge of true circumstances of legality and by individual true circumstances of legality, but this did not yield any statistically significant results (Tables A1 and A2).

Table 3. Bivariate results: Factors Associated with Abortion Legality Knowledge Scale		
	Mean (SD) Legality Knowledge or Correlation	P-value
Gender		0.012*
Man	7.17 (2.2)	
Woman	7.43 (0.9)	

Age	0.103	0.435
Profession		0.078 <sup>†</sup>
OB-GYN	8.50 (1.0)	
Intern	7.00 (0.0)	
Midwife	7.32 (0.9)	
Birthing Attendant	6.83 (0.4)	
Medical Assistant	8.67 (0.6)	
Doctor	7.63 (0.7)	
Midwife Student	6.67 (0.6)	
Other	7.00 (2.8)	
Years Worked	0.042	0.752
Provision		0.981
Yes	8.00 (1.0)	
No	7.35 (1.1)	
Referral		0.864
Would Refer	7.57 (1.3)	
Would Not Refer	7.38 (1.1)	
Don't Know Where	7.43 (1.1)	

Statistical Tests: Pierson Correlation (Age x Legality Scale, Years Worked x Legality Scale), Independent Sample T-Test (Gender x Legality Scale, Provision x Legality Scale), ANOVA (Profession x Legality Scale, Referral x Legality Scale)

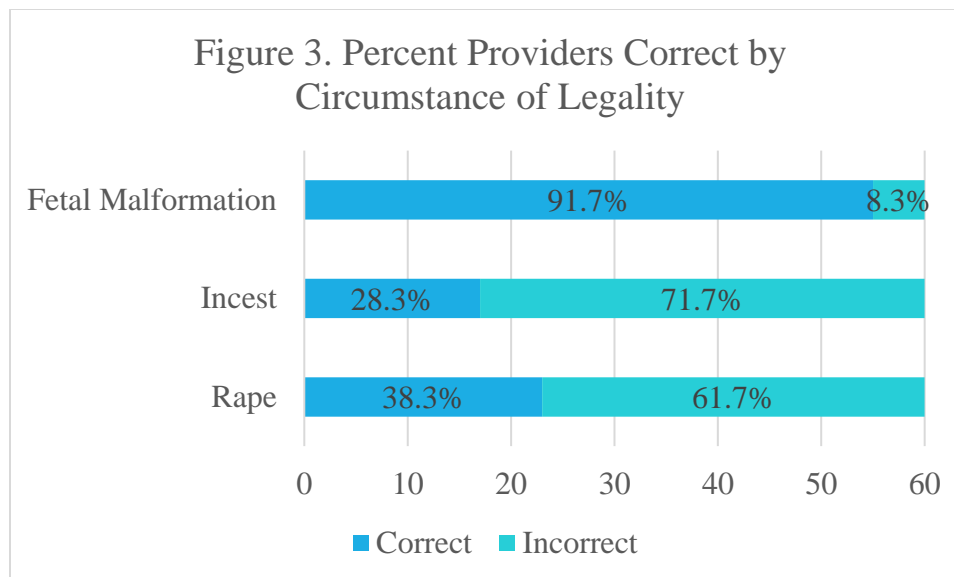
\* denotes a statistically significant result,  $p > 0.05$

† denotes a marginally statistically significant result,  $p > 0.10$

The degree to which providers knew the true circumstances of legality varied.

Most providers (91.7%) knew that abortion is legal in Togo under circumstances of fetal malformation. However, fewer than half of providers knew that abortion is legal under

circumstances of rape (38.3%), and just over a quarter of providers (28.3%) were aware that abortion is legal under circumstances of incest (Figure 3).



Half of participating providers exclusively knew that abortion was legal under conditions of fetal malformation (50.0%), while less than a quarter of providers (23.33%) knew the correct legality of rape and incest. More providers were familiar only with the cases of both rape and fetal malformation (15.0%) than only rape and incest (0.0%) or only incest and fetal malformation (3.33%), and four providers (6.67%) were not able to correctly identify any of the true circumstances of legality (Table 4). To better understand this distribution, we ran bivariate statistics between total legality circumstance knowledge and demographic characteristics. The analysis between knowledge and profession yielded a statistically significant result ( $p=0.006$ ) (Table A3).

<b>Table 4. Total Legality Circumstances Knowledge</b>		
<i>Circumstances Correctly Identified</i>	Frequency	Percent
No circumstances	4	6.67%
Rape Only	0	0.0%
Incest Only	1	1.67%

Fetal Malformation Only	30	50.0%
Rape + Incest	0	0.0%
Rape + Fetal Malformation	9	15.0%
Incest + Fetal Malformation	2	3.33%
Rape, Incest, and Fetal Malformation	14	23.33%

### *Aim 2 Results*

In binary logistic regression models assessing the impact of legality knowledge, age, profession, number of years worked, and referral practices upon provision of abortion services within the past 12 months, age, profession of doctor (generalist or OBGYN), profession of midwife, and years worked along accounted for 1.4 percent of variance in abortion provision ( $R^2 = 0.014$ ), while legality scale score independently accounted for 3.1 percent of variance ( $R^2 = 0.031$ ). Together, they accounted for 4.3 percent of variance ( $R^2 = 0.043$ ), and the addition of referral practices resulted in a regression accounting for 9.2 percent of total variance in outcome ( $R^2 = 0.092$ ). None of the variables in the equation were statistically significant; however, they were retained for their theoretical significance (Table 5).

<b>Table 5. Multivariable: Provision of Abortion in Past Twelve Months by Legality Knowledge Scale Score</b>				
Regression	Variables	Exp(B)	95% CI	R <sup>2</sup>
Model 1	Legality Knowledge	0.522	0.198-1.376	0.031
Model 2	Age	0.940	0.751-1.177	0.014
	Profession: Doctor (MD)	0.468	0.023-9.568	
	Profession: Midwife	0.399	0.034-4.636	
	Years Worked	1.059	1.398	
Model 3	Legality Knowledge	0.449	0.175-1.419	0.043



	Age	0.973	0.756-1.251	
	Profession: Doctor (MD)	0.760	0.037-15.628	
	Profession: Midwife	0.391	0.033-4.663	
	Years Worked	1.021	0.752-1.387	
Model 4	Legality Knowledge	0.573	0.176-1.862	0.092
	Age	0.926	0.694-1.236	
	Profession: Doctor (MD)	0.662	0.030-14.433	
	Profession: Midwife	0.383	0.027-10.073	
	Years Worked	1.073	0.779-1.477	
	Referral	2.809	0.783-10.073	

Table 5 presents regressions from model building to assess abortion provision in the past 12 months by legality scale score and demographics. R<sup>2</sup> values represented are Cox & Snell R Square.

\* denotes a statistically significant result,  $p > 0.05$

† denotes a marginally statistically significant result,  $p > 0.10$

In regressions using knowledge of legality in independent true circumstances of legality (rape and incest), which were binary (y/n) variables with “No,” the incorrect response, as the reference group, legality knowledge of rape alone accounted for 1.7 percent of variability in abortion practiced in the past 12 months ( $R^2 = 0.017$ ), legality knowledge of incest along accounted of 0.6 percent of variability ( $R^2 = 0.006$ ), while age, profession as a doctor, profession as a midwife, and years worked accounted for 1.4 percent of variability ( $R^2 = 0.014$ ). Age, profession, years worked, and rape legality knowledge together accounted for 3.4 percent of variance ( $R^2 = 0.034$ ); incest, age, profession, and years worked accounted for 2.2 percent of variance ( $R^2 = 0.022$ ); rape knowledge, demographics, and referral practice accounted for 8.3 percent of variance ( $R^2 = 0.083$ ); incest knowledge, demographics, and referral practice accounted for 8.4 percent of variance ( $R^2 = 0.080$ ); and finally, rape knowledge, incest knowledge,

demographics, and referral together accounted for 8.4 percent of variance ( $R^2 = 0.084$ ).

None of the variables in the equation were statistically significant but we retained them for their theoretical significance (Table 6).

<b>Table 6. Multivariable Results: Provision in Past Twelve Months by Legality Knowledge (Rape, Incest, Malformation)</b>				
Regression	Variables	Exp(B)	95% CI	R <sup>2</sup>
Model 1	Rape Legality Knowledge	0.381	0.059-3.476	0.017
Model 2	Incest Legality Knowledge	0.563	0.085-3.705	0.006
Model 3	Age	0.940	0.751-1.177	0.014
	Profession: Doctor (MD)	0.468	0.023-9.568	
	Profession: Midwife	0.399	0.034-4.636	
	Years Worked	1.059	0.802-1.398	
Model 4	Rape Legality Knowledge	0.330	0.046-2.388	0.034
	Age	0.939	0.743-1.186	
	Profession: Doctor (MD)	0.551	0.028-10.945	
	Profession: Midwife	0.359	0.030-4.297	
	Years Worked	1.050	0.787-1.400	
Model 5	Incest Legality Knowledge	0.463	0.056-3.834	0.022
	Age	0.952	0.751-1.208	
	Profession: Doctor (MD)	0.582	0.029-11.786	
	Profession: Midwife	0.340	0.028-4.132	
	Years Worked	1.045	0.782-1.397	
Model 6	Rape Legality Knowledge	0.491	0.061-3.888	0.083
	Age	0.899	0.685-1.479	
	Profession: Doctor (MD)	0.492	0.024-10.260	

	Profession: Midwife	0.390	0.030-5.046	
	Years Worked	1.093	0.808-1.479	
	Referral	2.849	0.769-10.558	
Model 7	Incest Legality Knowledge	0.513	0.043-6.121	0.080
	Age	0.916	0.689-1.217	
	Profession: Doctor (MD)	0.587	0.028-12.351	
	Profession: Midwife	0.341	0.020-5.672	
	Years Worked	1.085	0.795-1.482	
	Referral	2.930	0.830-10.343	
Model 8	Rape Legality Knowledge	0.554	0.047-6.571	0.084
	Incest Legality Knowledge	0.770	0.039-15.093	
	Age	0.905	0.678-1.207	
	Profession: Doctor (MD)	0.511	0.024-11.063	
	Profession: Midwife	0.352	0.021-5.930	
	Years Worked	1.089	0.799-1.485	
	Referral	2.850	0.779-10.424	

Table 6 presents regressions from model building to assess abortion provision in the past 12 months by rape and incest legality circumstance knowledge and demographics.  $R^2$  values represented are Cox & Snell R Square.

\* denotes a statistically significant result,  $p > 0.05$

† denotes a marginally statistically significant result,  $p > 0.10$

### *Aim 3 Results*

Legality scale score alone accounted for less than one percent of variability in referral practices (Pseudo  $R^2=0.005$ ). However, age, profession, and years worked accounted for over 16 percent of variability in referral practices (Pseudo  $R^2=0.162$ ), and the combination of age, profession, number of years worked, and legality knowledge

score accounted for only slightly more (Pseudo  $R^2 = 0.166$ ). In the regression containing only demographic variables, age, and profession of doctor (generalist and OBGYN) were marginally significant, with likelihood of non-referral decreasing by a factor of 0.781 with every year of increased age ( $p=0.081$ , AOR=0.781), and likelihood of non-referral increasing by a factor of 7.101 with profession of generalist or OBGYN ( $p=0.089$ , AOR=7.101). This marginal significance disappeared upon the inclusion of legality scale score in the regression (Table 7).

<b>Table 7. Multinomial Results: Willingness to Refer to Abortion Services by Legality Knowledge (Scale); Reference: Do not know where to refer</b>					
Regression	Group	Variables	Exp(B)	95% CI	Pseudo $R^2$
Model 1	Would Refer	Legality	1.145	0.656-1.998	0.005
	Would Not refer	Legality	0.954	0.460-1.979	
Model 2	Would Refer	Age	0.933	0.806-1.080	0.162
		Profession: Doctor (MD)	2.348	0.379-14.556	
		Profession: Midwife	1.378	0.372-5.099	
		Years Worked	1.082	0.900-1.300	
	Would Not Refer	Age	0.781	0.591-1.031 <sup>†</sup>	
		Profession: Doctor (MD)	7.101	0.739-68.216 <sup>†</sup>	
		Profession: Midwife	1.003	0.101-10.011	
		Years Worked	1.312	0.926-1.859	
Model 3	Would Refer	Legality	1.126	0.619-2.049	0.166

		Age	0.928	0.798-1.078
		Profession: Doctor (MD)	2.113	0.316-14.147
		Profession: Midwife	1.364	0.368-5.060
		Years Worked	1.088	0.902-1.311
	Would Not Refer	Legality	0.870	0.342-2.218
		Age	0.792	0.598-1.051
		Profession: Doctor (MD)	7.685	0.697-84.765
		Profession: Midwife	1.006	0.100-10.121
		Years Worked	1.293	0.913-1.830

Table 7 presents regressions from model building to assess abortion referral practices by legality scale score and demographics.

Reference Group: No, I do not know where to refer.

\* denotes a statistically significant result,  $p > 0.05$

† denotes a marginally statistically significant result,  $p > 0.10$

We did conduct additional analyses using the rape and incest cases of abortion legality survey. Fetal malformation was not included due to the low number of providers who *did not* know it was a circumstance of legal abortion. Rape legality knowledge alone accounted for 9.6 percent of variation in referral (Pseudo  $R^2=0.096$ ), and was marginally statistically significant; those who were aware of the legality of abortion under circumstances of rape were 5.00 times as likely to not refer a woman to services ( $p=0.059$ , AOR=5.00) and 3.00 times as likely to refer a woman ( $p=0.053$ , AOR=3.00).

Incest knowledge alone accounted for less variation (Pseudo  $R^2=0.011$ ), and was not statistically significant (Table 8, Regressions 1-2).

A model containing only age, profession, and number of years worked again accounted for 16.2 percent of variation (Pseudo  $R^2=0.162$ ), with age and profession as a generalist or OBGYN as marginally significant among those who would not refer (Table 9, Regression 3). The model including rape legality knowledge and age, profession, and years worked accounted for 24.6 percent of variance in referral behavior (Pseudo  $R^2=0.246$ ). This model included marginal significance of legality knowledge and age among those who would not refer, wherein knowledge of the legality of abortion under circumstances of rape increased the likelihood of not referring a woman by 6.706 times ( $p=0.053$ , AOR=6.706), and each year increase in age decreased likelihood of non-referral by a factor of 0.753 ( $p=0.053$ , AOR=0.753). Among those who would refer a woman, knowledge of rape-related abortion legality increased referral by a factor of 3.570 ( $p=0.049$ , AOR=3.570) (Table 8, Regression 4).

A model including incest-related knowledge of abortion legality with demographics accounted for 17.7 percent of variance (Pseudo  $R^2=0.177$ ). Only age was marginally statistically significant in predicting decreased likelihood of non-referral ( $p=0.066$ , AOR=0.743) (Table 8, Regression 5).

The final model assessed the impact of knowledge regarding both circumstances of legality. This model included abortion-related legality for rape and for incest, as well as age, profession, and years worked. It accounted for slightly over 25 percent of variation in referral behavior ( $R^2=0.251$ ). Rape-related abortion legality knowledge was marginally statistically significant, accounting for a 7.483 times increased likelihood of

non-referral ( $p=0.066$ ,  $AOR=7.483$ ) among those who would not refer, and a 4.671 times increased likelihood of referring among those who would refer ( $p=0.061$ ,  $AOR=4.671$ ), as was age, which accounted for a decreased likelihood of non-referral by a factor of 0.745 among those who would not refer ( $p=0.073$ ,  $AOR=0.745$ ) (Table 8, Regression 6).

<b>Table 8. Multinomial results: Willingness to Refer to Abortion Services by Legality Knowledge (Rape, Incest, Fetal Malformation); Reference: Do not know where to refer</b>					
Regression	Group	Variables	Exp(B)	95% CI	Pseudo R <sup>2</sup>
Model 1	Would Refer	Rape Legality Knowledge	3.300	0.984-11.071 <sup>†</sup>	0.096
	Would Not refer	Rape Legality Knowledge	5.000	0.944-26.494 <sup>†</sup>	
Model 2	Would Refer	Incest Legality Knowledge	1.500	0.431-5.220	0.011
	Would Not refer	Incest Legality Knowledge	1.800	0.340-9.538	
Model 3	Would Refer	Age	0.933	0.806-1.080	0.162
		Profession: Doctor (MD)	2.348	0.379-14.556	
		Profession: Midwife	1.378	0.372-5.099	
		Years Worked	1.082	0.900-1.300	
	Would Not Refer	Age	0.781	0.591-1.031 <sup>†</sup>	
		Profession: Doctor (MD)	7.101	0.739-68.216 <sup>†</sup>	

		Profession: Midwife	1.003	0.101-10.011	
		Years Worked	1.312	0.926-1.859	
Model 4	Would Refer	Rape Legality Knowledge	3.570	1.005- 12.684*	0.246
		Age	0.921	0.787-1.077	
		Profession: Doctor (MD)	2.085	0.320-13.589	
		Profession: Midwife	1.546	0.388-6.154	
		Years Worked	1.105	0.910-1.343	
	Would Not Refer	Rape Legality Knowledge	6.706	0.978- 45.986 <sup>†</sup>	
		Age	0.752	0.563-1.004 <sup>†</sup>	
		Profession: Doctor (MD)	6.884	0.656-72.245	
		Profession: Midwife	1.205	0.113-12.851	
		Years Worked	1.363	0.941-1.976	
Model 5	Would Refer	Incest Legality Knowledge	1.716	0.415-7.104	0.177
		Age	0.922	0.791-1.076	
		Profession: Doctor (MD)	2.001	0.312-12.844	
		Profession: Midwife	1.560	0.398-6.117	



		Years Worked	1.093	0.904-1.322	
	Would Not Refer	Incest Legality Knowledge	2.673	0.316-22.601	
		Age	0.743	0.541-1.020 <sup>†</sup>	
		Profession: Doctor (MD)	6.295	0.644-61.536	
		Profession: Midwife	1.392	0.118-16.418	
		Years Worked	1.375	0.939-2.013	
Model 6		Would Refer	Rape Legality Knowledge	4.671	0.923-23.634 <sup>†</sup>
		Incest Legality Knowledge	0.593	0.091-3.860	
		Age	0.931	0.794-1.090	
		Profession: Doctor (MD)	2.337	0.331-16.552	
		Profession: Midwife	1.389	0.335-5.767	
		Years Worked	1.373	0.902-1.311	
	Would Not Refer	Rape Legality Knowledge	7.483	0.878-63.764 <sup>†</sup>	
		Incest Legality Knowledge	0.929	0.077-11.151	
		Age	0.745	0.540-1.027 <sup>†</sup>	

		Profession: Doctor (MD)	7.488	0.681-82.361	
		Profession: Midwife	1.227	0.102-14.831	
		Years Worked	1.373	0.929-2.030	

Table 8 presents regressions from model building to assess abortion referral practices by rape and incest legality circumstance knowledge and demographics.

Reference Group: No, I do not know where to refer.

\* denotes a statistically significant result,  $p > 0.05$

† denotes a marginally statistically significant result,  $p > 0.10$

## 5. Discussion

### *Legality Knowledge*

Knowledge of the law on abortion varied greatly across surveyed individuals, with some statistical significance. Identification as a woman was associated with scale knowledge, and profession was associated with legality knowledge scale and with total legality circumstance knowledge. While these associations may indicate some increased learning regarding abortion legality based on profession, legality knowledge generally was low regarding circumstances pertaining to the pregnant woman. Less than half of respondents knew that abortion was legal in circumstances of rape or incest, which may indicate that abortions under these circumstances rarely happen, legally or illegally. Alternatively or additionally, it may indicate that there is insufficient dissemination of knowledge regarding the legal circumstances of abortion among reproductive health care providers regardless of gender, age, years worked, and profession.

### *Abortion Provision Practices*

None of the models assessing legality's contribution to provision yielded statistically or practically significant results. As such, we must conclude that any predictive ability of these variables is limited. Models only accounted for up to 9.2 percent of variance in abortion provision in the past 12 months; however, they show that rape legality knowledge is more indicative of provision than incest legality knowledge, that demographic greatly contributed to provision, and that referral contributed more to provision than other co-variables. This may indicate that referral practices are somewhat predictive of provision behavior. Additionally, these results demonstrate that neither demographics nor knowledge of legality, as a legality scale score or individual knowledge of the circumstances of rape and incest, are significant predictors of abortion provision behaviors within the past 12 months among reproductive care providers in Lomé. This may be because legality knowledge in general is not predictive of provision, or may it be indicative of measures of legality and/or provision that are not valid. The latter of these is more likely, given previous literature demonstrating the relationship between legality knowledge and provision in similar contexts.

### *Abortion Referral Practices*

Legality scale score was not indicative of referral practices, and demographics- particularly the statistically significant age- contributed more to the models assessing referral than legality knowledge, indicating that demographics play a greater role in predicting referral behavior than legality scale score. Rape legality knowledge was a significant contributor to variance in models, while incest legality knowledge was not. These results lead to the conclusion that knowledge of the abortion-related legality

surrounding rape is a better indicator of referral behavior than that for incest, but that demographics also play an important role in referral behavior.

Additionally, increased knowledge of abortion legality, and in particular legality under the circumstance of rape, led to decreased likelihood of referral. This effect was divergent among those who would and would not refer, in each case increasing their respective behavior, with a stronger effect towards non-referral.

### *The Role of Profession*

Profession has some salience across referral analyses as significant or marginally significant, indicating that it may play an important role in the intersection of legality knowledge, provision practices, and referral practices. Profession was statistically significant associated with total knowledge of abortion legality, and was marginally significantly associated with legality scale knowledge, but it was not associated with either provision or referral at the bivariate level. However, in the referral model including only demographics, profession of medical doctor, including both OBGYNs and generalists, increased the likelihood of non-referral among those who would not refer. It is possible that an increased legality knowledge is in part responsible for this increased unwillingness to refer, given that OB-GYNs had the second highest mean legality knowledge scale score. Medical assistants had the highest mean score, however in regressions they were included in the Allied Health Professionals group, which may have caused any statistically significant impact on provision or referral to wash out.

### *Age and Referral*

Across referral models, age regularly indicated decreased likelihood of referral among “would not refer” groups, indicating that younger providers were more likely not

to refer. Despite this, age had no significance in bivariate analyses with any configuration of legality knowledge, abortion provision, or referral. Therefore, it is difficult to assess the underlying reasons for this association, and this may be an area that warrants further research

### *Impact of Legality Knowledge on Referral*

Across referral models, rape circumstance knowledge increased the likelihood of non-referral among those who would not refer, and increased the likelihood of referral among those who would refer. This may indicate that practices of referral are based on a decision-making component that is auxiliary to knowledge of abortion legality, such as perception of risk of legal ramifications. The effect size upon referral practices is consistently greater among those who would not refer than those who would refer, indicating that while this may be a means by which to increase knowledge and thereby increase referral to safe or “less” rather than “least” safe abortion services, it may also lead to decreased referral due to the understanding of illegality of many circumstances of abortion. However, this may lead to increased referral to services, and potentially provision of services in the long-term, following the model of La Mesa and given the relationship between provision and referral.

The overall lack of significance toward provision or referral of the legality knowledge scale scores may indicate that it is an ineffective measure of true knowledge of legality, particularly given the significance of knowledge of individual circumstances of abortion legality. Alternatively, the lack of significance may suggest that the law is ambiguous, and therefore specific circumstances in which women may seek abortions

services are more indicative of applied knowledge than knowledge of all circumstances, both true and false.

### *Predictive Ability of the Social Cognitive Theory*

Due to the lack of statistically significant predictive value of legality knowledge upon provision of abortion, we cannot assess the degree to which the Social Cognitive Theory can account for provider practices. Given that knowledge of abortion legality under the circumstances of rape does impact referral behavior, it is possible that this knowledge is operating as behavioral capability and influencing outcome expectations, as outlined by the Social Cognitive Theory. Particularly indicative of this may be the divergent influence that rape legality knowledge has upon referral, in which those whose knowledge positively influences referral may be referring cases known to be legal, while those whose knowledge negatively influences referral may be abstaining from referring cases known to be illegal. This relationship falls more heavily on the side of non-referral, as was predicted due to the lack of operationalization of *de jure* legality, making it unclear what constitutes a legal abortion in Togo. To better understand this relationship, and the role of the Social Cognitive Theory within it, further research is needed.

### *Limitations*

There are several possible limitations to the parent study, and therefore to this analysis. The sample size, 60 providers, is small, leading to the possibility that significant relationships were obscured due to a lack of power, or that nonsignificant relationships appeared significant due to random error. All providers surveys were conducted in French, which is the official language of Togo but not the most widely spoken. While all providers were able to sufficiently speak and read French, it is possible that any

discomfort with French or unfamiliarity with certain words could lead to bias. Because of ambiguous *de facto* legality of abortion to save a woman's physical health, we did not include this circumstance within our survey. It is possible that this circumstance had a significant relationship or predictive value with abortion provision and/or referral that we missed because of this decision. It is also possible that providers were not truthful regarding their abortion provision or referral practices because of the highly stigmatizing nature of abortion in Togo; it is also possible that this was intensified by the administration of the surveys by a non-Togolese research team, or by the stakeholder-assisted sampling done in collaboration with their superiors within the care setting. Additionally, survey response may have been influenced by social desirability bias, as while surveys were completed individually, participant providers were in the presence of other providers during this time, and may have been influenced the perception of their judgement.

It may be that the measures used to assess the analyzed variables in the parent study are not valid, or are not representative of the true circumstances they are intended to represent. This is particularly a concern regarding measurements of legality knowledge, which is difficult to assess given its ambiguity in the law. While we attempted to decrease the likelihood of measurement error in this regard by excluding the *de jure* circumstance with the reported least *de facto* influence or practice, it is possible that that remaining circumstances are equally problematic for this assessment.

Finally, surveys were conducted in four reproductive healthcare settings in the Togolese capitol of Lomé. It is possible that the respondents in these four settings are not representative of all reproductive healthcare providers in Lomé, and likely that they are

not representative of providers outside of the city of Lomé. This survey was cross-sectional in nature, and therefore only represents options, knowledge, and experience at the time of survey completion.

### *Implications*

The primary conclusion of this analysis is that knowledge of the circumstances of legality of abortion in Togo is low regarding circumstances other than fetal malformation. The fetus-centric knowledge of abortion may be indicative of prevailing social norms regarding fertility and women's autonomy. There is a clear need for education regarding other circumstances of abortion legality if reproductive health care providers are to accurately understand the circumstances under which a woman can legally seek an abortion and advise women as necessary regarding their rights.

Compounding this, there is uneven distribution of the burden of abortion provision and care, especially compared to legality knowledge. While OBGYNs, medical assistants, and medical doctors in aggregate had the highest levels of knowledge or were statistically significant associated with increased knowledge and/or willingness to refer patients to abortion services, they are not responsible for the vast majority of reproductive care in Togo. As of 2016 it was reported that there were only 23 gynecologist in the entire Togolese healthcare system, most of whom were concentrated in Lomé, and only 300 doctors in all of Togo.<sup>12</sup> The majority of reproductive care is conducted by midwives, who are sometimes only informally trained.<sup>12</sup> Furthermore, midwives do not receive training on how to induce abortions, and it is unclear whether or not they are legally allowed to practice abortions even under legal circumstances.<sup>12</sup>



Additionally, legality knowledge among midwives was lower than that of OBGYNs, generalists, and medical assistants, despite more patient interaction and therefore increased potential for abortion provision and/or referral.

Finally, there are many reproductive health care providers, particularly medical doctors and those with knowledge of the legality of abortion under circumstances of rape, who are willing to refer patients to abortion services if not perform them themselves. Results show that most providers who were aware of someone to refer a woman for abortion would do so, without assessing referral by legality knowledge. This documentation of willingness to referral is in itself important to understanding the dynamics of abortion provision.

The general lack of legality knowledge, and the lack of legality knowledge among those who need it most indicates that providers are not adequately equipped to care for women in need of comprehensive abortion care (CAC). This has been documented previously in terms of medical knowledge- CAC training is inconsistent even among medical doctors in Togo, despite the efforts of many non-governmental organizations, and standards of care remain unstandardized in policy and below those which are recommended by the World Health Organization.<sup>12</sup> This knowledge is essential to providing legal and safe abortions. Togo will need to clarify the law regarding abortion and issue articles outlining operationalization, including who can provide CAC; additionally, Togo should standardize training for both post-abortion care (PAC) and CAC services. Integration of these together in medical education should be considered, ensuring that women seeking legal services can obtain them in a safe manner.

Increased abortion legality knowledge is associated with increased referral to abortion services, which may be legal or illegal services. To increase the likelihood of a woman seeking illegal services finding a trained provider willing to perform her abortion, there needs to be an increased in the number of trained providers within the Togolese healthcare system. If clarification of abortion legality leads to restriction of practice to gynecologists, there should be encouragement or facilitation of an increased gynecologist population, through subsidized training or similar catalytic means. If mid-level providers are legally allowed to induce abortions, medical and legal education at all training levels of the Togolese medical system would be advisable. Inclusion of mid-level providers, and particularly midwives, as legally allowed to induced abortions is highly recommended- they are in the most appropriate position to advise, provide, and refer women seeking care, and require the legality and practice knowledge to do so. Placement of midwives as a knowledge resource may reduce the number of women seeking clandestine or unsafe services immediately instead of going to a trained provider.

The apparent positive influence of referral practices upon provision also warrants consideration here. If referral normalizes or promotes provision, and legality knowledge is associated with increased referral, dissemination of legality knowledge may increase provision of abortion services. These services must be safe, emphasizing the need for CAC and PAC training to occur concurrently with legality education.

Given the restrictive legal circumstances of abortion in Togo, there will be women who desire abortions but are not eligible. Efforts to increase modern contraceptive availability and uptake may lower the rate of unplanned pregnancies, and thereby abortions, but will not eliminate the need. Expanded training of providers will

increase the likelihood of a trained provider being willing to provide illegal abortions; however, there will remain women who are not able to locate trained providers, or who will seek untrained providers as a clandestine method due to abortion stigma. Increased access to misoprostol would allow for access of a “less safe” abortion- performed by a recommended method but not performed by a trained provider. However, as with any pharmaceutical, supply may not be consistent or affordable. A decrease in abortion stigma and shift in societal norms of gender inequality may also allow women to seek less clandestine but more safe services, but require extensive time to occur. The ultimate implication of this is that only by expansion of Togolese abortion legality, including knowledge dissemination and CAC/PAC training, can the health burden caused by unsafe abortions be ameliorated.

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### Appendix A: Additional Tables

<b>Table A1. Bivariate: Legality Categories</b>				
Legality Knowledge	None	Some	All	Significance (ANOVA, $\chi^2$ ,
All	4 (6.7%)	42 (70.0%)	14 (23.3%)	
Gender				0.240
Man	0	3 (5.0%)	3 (5.0%)	
Woman	4 (6.7%)	39 (65.0%)	11 (18.33%)	
Age	33.25 (12.28)	32.10 (10.57)	35.86 (4.39)	0.457
Profession				0.50
OB-GYN	0	1 (1.67%)	3 (5.0%)	
Intern	0	3 (5.0%)	0	
Midwife	2 (3.33%)	22 (36.67%)	4 (6.7%)	
Birthing Attendant	1 (1.67%)	4 (6.7%)	1 (1.67%)	
Medical Assistant	0	1 (1.67%)	2 (3.33%)	
Doctor	0	7 (11.67%)	1 (1.67%)	
Midwife Student	1 (1.67%)	1 (1.67%)	0	
Other	0	0	3 (5.0%)	
Years Worked	8.00 (7.66)	7.32 (8.05)	8.79 (4.49)	0.811

Provision				0.580
Yes	1 (1.67%)	3 (5.0%)	2 (3.33%)	
No	4 (6.7%)	39 (65.0%)	12 (20.0%)	
Referral				0.345
Would Refer	0	15 (25.0%)	6 (10.0%)	
Would Not Refer	1 (1.67%)	4 (6.7%)	3 (5.0%)	
Don't Know Where	1 (1.67%)	22 (36.67%)	5 (5.0%)	

**Table A2. Bivariate: Individual Legality True Circumstances**

Circumstance	Rape (Correct)		Incest (Correct)		Fetal Malform. (Correct)	
	N (%), M(SD)	p-value	N (%), M(SD)	p-value	N (%), M(SD)	p-value
Gender		0.666		0.048*		1.00
Man	3 (5.0%)		4 (6.7%)		6 (10.0%)	
Woman	20 (33.3%)		13 (21.67%)		49 (81.67%)	
Age	32.26 (6.8)	0.007*	34.06 (6.1)	0.013*	33.24 (9.5)	0.448
Profession		0.013*		0.033*		0.451
OB-GYN	3 (5.0%)		3 (5.0%)		4 (6.7%)	



Intern	0		1 (1.67%)		2 (3.33%)	
Midwife	9 (15.0%)		4 (6.7%)		26 (43.3%)	
Birthing Attendant	1 (1.67%)		1 (1.67%)		5 (8.3%)	
Medical Assistant	3 (5.0%)		2 (3.33%)		3 (5.0%)	
Doctor	3 (5.0%)		3 (5.0%)		8 (13.3%)	
Midwife Student	0		0		2 (3.33%)	
Other	3 (5.0%)		3 (5.0%)		4 (6.7%)	
Years Worked	6.93 (4.7)	0.026	7.76 (8.1)	0.095	7.81 (7.3)	0.841
Provision		0.362		0.616		1.00
Yes	3 (5.0%)		2 (3.33%)		5 (8.3%)	
No	20 (33.3%)		15 (25.0%)		50 (83.3%)	
Referral		0.057		0.719		0.216
Would Refer	11 (18.3%)		7 (11.67%)		21 (35.0%)	
Would Not Refer	5 (8.3%)		3 (5.0%)		7 (11.67%)	
Don't Know Where	21 (35.0%)		7 (11.67%)		26 (43.3%)	

Table A3. Bivariate: **Total Legality True Circumstances**

Knowledge of Circumstances	None N (%) or Mean (SD)	Incest Only	Fetal Malformation Only	Rape and Fetal Malformation	Incest and Fetal Malformation	All	P- value
Gender							0.185
Man	0	0	2	0	1	3	
Woman	4	1	28	9	1	11	
Age	33.25 (12.28)	22.00	34.37(11.39)	26.67(5.50)	27.5(3.53)	35.05(4.87)	0.172
Profession							0.006*
OB-GYN	0	0	1	0	0	3	
Intern	0	1	2	0	0	0	
Midwife	2	0	17	5	0	4	
Birthing Attendant	1	0	4	0	0	1	
Medical Assistant							
Doctor	0	0	0	1	0	2	
Midwife Student	0	0	3	2	2	1	
Other	1	0	2	0	0	0	

Profession Category	Medical Doctor	0	0	1	0	0	3	0.134
	Midwife	0	0	4	2	2	4	
	Allied Health Prof.	2	0	17	5	0	4	
		2	1	9	2	0	6	
Years Worked		8.00(7.66)	1.00	8.83(8.92)	4.06(3.54)	2.5(0.71)	8.79(4.49)	0.404
Practice in Past 12 Months	Yes	0	0	2	1	0	2	0.915
	No	4	1	28	8	2	12	
Referral	Would Refer	0	0	9	5	1	6	0.431
	Would Not Refer	1	0	2	2	0	3	
	Don't Know Where	1	1	18	2	1	5	

## Appendix B: Survey

### Provider Survey

Page 1 of 6

Please complete the survey below.

Thank you!

Survey ID \_\_\_\_\_

Quelle est votre profession actuelle ?

- \_\_\_\_\_
- Médecin Généraliste
  - Gynécologue-Obstétricien
  - DES de Gynécologie-Obstétrique (en cours de spécialisation)
  - Interne
  - Sage-femme d'Etat
  - Accoucheuse auxiliaire d'Etat
  - Assistant Médical
  - Infirmier(e)
  - Autre

Quelle est votre profession actuelle ?

\_\_\_\_\_

À quel hôpital est-ce que vous travaillez?

- CHR Lomé Commune
- ATBEF
- Hôpital de Bè
- CHU SO

Quel est votre sexe ?

- Masculin
- Féminine

Quel âge avez-vous ?

\_\_\_\_\_

Depuis combien d'années est-ce que vous travaillez comme professionnel de santé ?

\_\_\_\_\_

Combien de cas liés à l'avortement est-ce que vous voyez à cet établissement, par mois?

\_\_\_\_\_

Quelles sont les méthodes les plus fréquemment utilisés par les femmes pour pratiquer un avortement à risque, complet ou incomplet?

- L'ingestion de l'eau de Javel
  - L'ingestion du thé herbal
  - L'ingestion de la quinine ou des antipaludéens
  - L'insertion vaginale d'un bout de bois
  - L'insertion vaginale d'un cintre
  - L'insertion de dispositif intra-utérin
  - Autre
- (Cochez tous les bonnes cases qui s'appliquent)

Quelles sont les méthodes les plus fréquemment utilisés par les femmes pour pratiquer un avortement à risque, complet ou incomplet?

\_\_\_\_\_

Où vous les femmes, en tout premier lieu, lorsqu'elles veulent se faire avorter ?

- Centre de santé local
  - Hôpital
  - Guérisseur traditionnel
  - Vendeur de médicaments de rue
  - Membre de la famille/ ami (e)
  - Automédication
  - Autre
- (Cochez tous les bonnes cases qui s'appliquent.)

Où vous les femmes, en tout premier lieu, lorsqu'elles veulent se faire avorter ?

\_\_\_\_\_

Qu'est-ce qui empêche une femme d'avoir recours aux soins médicaux de santé après un avortement provoqué (complet ou incomplet) ?

- La crainte des poursuites judiciaires
  - La honte ou la stigmatisation
  - Le manque d'accès aux centres de santé
  - Le manque d'argent
  - Le manque de soutien familiale
  - Autre
- (Cochez tous les bonnes cases qui s'appliquent.)

---

Qu'est-ce qui empêche une femme d'avoir recours aux soins médicaux de santé après un avortement provoqué (complet ou incomplet) ?

Quelles sont les TROIS complications à court terme (en deça d'une semaine après l'avortement) que vous observez le plus souvent chez les femmes ayant tenté ou réalisé un avortement non-médicalisé ?

- Saignements
  - Anémie
  - Infection urogénitale
  - Décès
  - Septicémie
  - Dépression post- abortum
  - Rupture utérine
  - Autre
- (Cochez TROIS cases qui s'appliquent)

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Quelles sont les TROIS complications à court terme (en deça d'une semaine après l'avortement) que vous observez le plus souvent chez les femmes ayant tenté ou réalisé un avortement non-médicalisé ?

Quelles sont les complications à long terme (au-delà d'une semaine après l'avortement) que vous observez le plus souvent chez les femmes ayant tenté ou réalisé un avortement non-médicalisé ?

- Fistule obstétricale
  - Infertilité/ stérilité
  - Synéchie utérine
  - Dépression post- abortum
  - Rupture utérine
  - Autre
- (Cochez toutes les cases qui s'appliquent)

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Quelles sont les complications à long terme (au-delà d'une semaine après l'avortement) que vous observez le plus souvent chez les femmes ayant tenté ou réalisé un avortement non-médicalisé ?

Qu'est-ce que vous considérez comme facteurs de risque de mortalité liée à l'avortement à risque chez une femme ?

- Son statut socioéconomique
  - Son âge gestationnel au moment de l'avortement
  - Son âge
  - Son niveau d'éducation
  - Le nombre de naissances vivantes précédentes
  - Les avortement précédents
  - Son soutien familial
  - Autre
- (Cochez toutes les cases qui s'appliquent)

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Qu'est-ce que vous considérez comme facteurs de risque de mortalité liée à l'avortement à risque chez une femme ?

Au cours de votre formation médicale, avez-vous appris comment pratiquer un avortement ?

- Oui
- Non

Quelles méthodes avez-vous apprises ?

- L'Aspiration manuelle  
 L'Aspiration électrique  
 Le Curetage  
 Le Curage digital  
 L'administration de Misoprostol  
 L'administration de Progestérone  
 Autre  
 (Cochez toutes les cases qui s'appliquent)

Quelles méthodes avez-vous apprises ?

\_\_\_\_\_

Au cours de votre formation médicale, avez-vous appris comment donner des soins après avortement ?

- Oui  
 Non

Avez-vous pratiqué un avortement pendant les derniers douze mois ?

- Oui  
 Non

Quelles méthodes avez-vous employées pour pratiquer un avortement ?

- L'Aspiration manuelle  
 L'Aspiration électrique  
 Le Curetage  
 Le Curage digital  
 L'administration de Misoprostol  
 L'administration de Progestérone  
 Autre  
 (Cochez toutes les cases qui s'appliquent)

Quelles méthodes avez-vous employées pour pratiquer un avortement ?

\_\_\_\_\_

Pourquoi n'avez-vous pas pratiqué un avortement ?

- Mes croyances  
 J'ai peur du jugement de mon entourage si mes proches savent que je pratique l'avortement  
 Je n'ai pas de connaissance médicale pour bien pratiquer un avortement  
 Je n'ai pas de matériel adéquat pour pratiquer l'avortement  
 Je n'ai pas l'environnement (personnel, équipement...) pour prendre en charge les complications  
 Je crains les poursuites judiciaires  
 Autre

Pourquoi n'avez-vous pas pratiqué un avortement ?

\_\_\_\_\_

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### Quelles sont vos connaissances médicales par rapport aux techniques suivantes ?

**Pour les prochaines questions, évaluez votre connaissance à l'égard des techniques suivantes en attribuant une cote sur une échelle de 1 à 3, où 1 signifie**

	1	2	3
L'aspiration manuelle	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
L'aspiration électrique	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Le Curetage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
L'administration de Misoprostol	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

L'administration de Progestérone




Si vous pratiquiez un avortement, est ce que vous recherchiez d'abord l'accord du mari ou du partenaire avant de le faire ?

- Oui
- Non
- Je ne sais pas

Si vous pratiquiez un avortement, est ce que vous recherchiez d'abord l'accord des parents avant de le faire ?

- Oui
- Non
- Je ne sais pas

Si vous ne pouvez ni voulez pratiquer un avortement, est-ce vous sauriez où envoyer la femme pour ce service ?

- Oui, je sais où se trouve ce service, et j'adresserai la femme à ce service
- Oui, je sais où se trouve ce service, mais je n'adresserai pas la femme à ce service
- Non, je ne sais pas où se trouve ce service

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**Dans la question suivante, nous allons évaluer votre connaissance de dispositions légales actuelles sur l'avortement au Togo.**

A votre connaissance, l'avortement est légal au Togo :

- Si la grossesse est la conséquence d'un viol
  - Si la grossesse est la conséquence d'un inceste
  - Si la grossesse n'est pas voulue par la mère
  - Si la mère voudrait poursuivre ses études
  - Si la mère voudrait poursuivre un apprentissage ou une profession
  - S'il y a des malformations fœtales
  - Si la grossesse et l'enfant à venir ne peuvent pas être pris en charge financièrement par la mère ou sa famille
  - Si la mère est âgée de moins de 15 ans
  - Le fœtus a été conçu dehors du mariage
- (Cochez toutes les cases qui s'appliquent)

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**Pour les questions suivantes, veuillez coter votre accord à l'égard des déclarations.**

	Fortement d'accord	D'accord	Ni en accord ni en désaccord	En Désaccord	Fortement en désaccord
Une femme devrait être légalement autorisée à interrompre sa grossesse si elle voudrait pouvoir poursuivre ses études.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Une femme devrait être légalement autorisée à interrompre sa grossesse si elle voudrait pouvoir poursuivre un apprentissage ou une profession.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Une femme devrait être légalement autorisée à interrompre sa grossesse si celle-ci résulte d'un inceste	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Une femme devrait être légalement autorisée à interrompre sa grossesse si elle résulte d'un viol.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Une femme devrait être légalement autorisée à interrompre sa grossesse si elle est âgée de moins de 15 ans	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Une femme devrait être légalement autorisée à interrompre sa grossesse dans n'importe quelle circonstance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Une femme devrait être légalement autorisée à interrompre sa grossesse si elle ne voudrait pas un autre enfant.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Une femme devrait être légalement autorisée à interrompre sa grossesse si le fœtus présente une malformation grave ou mortelle	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Une femme devrait être légalement autorisée à interrompre sa grossesse lorsqu'il n'y pas suffisamment de moyens pour élever l'enfant	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Une femme devrait être légalement autorisée à interrompre sa grossesse si le fœtus était conçu hors du mariage.

O11 Une femme devrait être légalement autorisée à interrompre sa grossesse si celle-ci présente un risque à la santé de la mère