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An abstract of

A thesis submitted to the Faculty of the Rollins School of Public Health of Emory University in partial fulfillment of the requirements for the degree of Master of Public Health in Global Health 2014

**Author: Andrea Catalano** 

#### Abstract

**Background:** Central America contributed 1.1 of the 4.2 million unsafe abortions that occurred in Latin American in 2008. Honduras is one of the three countries in the region that have complete bans on abortion and has the 2<sup>nd</sup> highest maternal mortality rate in the region at 100 deaths per 100,000 live births. Little research has been published on reproductive health in Honduras, where 58% of women report their most recent pregnancy as unintended.

**Objective:** The main objective of this study was to investigate the frequency of unintended pregnancy and abortion among women ages 18-24 present in health clinics in Comayagua, Honduras. We also sought to obtain information surrounding the attitudes towards abortion in specific circumstances among the study participants and how those attitudes fluctuate based on certain demographic characteristics.

**Methods:** 209 ever-pregnant women 18-24 years old participated in the four part survey which was administered in Spanish and translated for synthesis. Descriptive statistics and multinomial regression models were run using STATA version 13.

**Results:** Seventy-four percent reported not using any type of contraceptive immediately prior to their last pregnancy and 48% reported that the pregnancy was unintended. Endangerment of the woman's life garnered the most support for acceptability of abortion with 71% responding 'yes' (40%) or 'maybe' (31%). Both women in partnerships (RR=4.31, 95% CI 1.43-13.02) and with higher education levels (RR=2.21, 95% CI 1.19-4.08) were more likely to be accepting of an abortion when the woman's life was in danger. Women with higher income were more likely to accept abortion in cases of a fetal anomaly (RR=1.71, 95% CI 1.02-2.86).

**Discussion:** This study is unique in that it is the first of its kind to be conducted in Comayagua and it provides a baseline of attitudes towards abortion in Honduras. The reported number of induced abortions is far lower than expected, however we anticipated both misreporting and underreporting. Given the discordance between the opinions of the participants and the abortion laws in Honduras, the argument can be made that Honduran women in Comayagua may be accepting of a limited liberalizing of the current laws.

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I am very thankful for the guidance and assistance of both Dr. Melissa Kottke, who spent hours going over my data tables with me and making suggestions for analysis, and Dr. Eva Lathrop, who encouraged me throughout this process. To my wonderful thesis adviser Dr. Roger Rochat: this project would not have even begun had you not been so incredibly supportive over these past 2 years. I am honored to have you as a mentor in my life and I can never fully express how much I appreciate you. I must also thank the Global Field Experience (GFE) and Global Elimination of Maternal Mortality from Abortion (GEMMA) funds for financing this project.

To my rock, Ncamiso: thank you for your endless support and wisdom. And lastly, to the women in Honduras, this is for you and it is just the beginning of a long battle towards reproductive justice and you all deserve.

Adelante siempre

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"Pregnancy related deaths...are often the ultimate tragic outcome of the cumulative denial of women's rights. Women are not dying because of untreatable diseases. They are dying because societies have yet to make the decision that their lives are worth saving." Mahmoud Fathalla

### **Chapter 1: Introduction**

The World Health Assembly first drew attention to unsafe abortion and its public health implications four decades ago ("Pregnancy and Abortion in Adolescence," 1975). Since then, other international conferences and assemblies have recognized the relationship between unintended pregnancy, abortion and maternal mortality and have committed to prioritizing this issue. While maternal mortality is on the decline, the impact of unsafe abortions can still be seen in the most recent statistics; an estimated 21.6 million unsafe abortions occurred globally in 2008 alone (Shah & Ahman, 2010). The denial of abortion services is increasingly being classified as a violation of human-rights by international organizations as research has provided strong evidence to the decline of maternal deaths in relation to access to safe and legal abortions.

Despite this, a small group of countries continue to have a complete ban on abortion, even in cases where the woman's life is in danger. Women seek out abortions for a variety of reasons including unintended pregnancy, inability to care for a child or fear of intimate partner violence. Evidence suggests that women will continue to obtain abortions despite legal restrictions, including performing self-induced abortions which can lead to hemorrhaging, sepsis and ultimately death. Honduras is one of three countries in Central America which has a total ban on abortion.

Honduras has little published research on the state of reproductive health, particularly related to abortion. Honduras currently has the 2<sup>nd</sup> highest maternal mortality rate in Central America, currently at 100 deaths per 100,000 live births, with approximately one third of those due to unsafe abortion (WHO, Maternal Mortality in Honduras). Both urban and rural areas have seen an increase in adolescent pregnancy rates and lack of access to reliable contraception; in many ways Honduras has been left behind in the battle to reduce maternal deaths and improve reproductive health. The principal

investigator of this study partnered with UNICEF and the Ministry of Health in Honduras to design and implement a study to capture young women's experiences with pregnancy and abortion. In this study I investigate the correlation between unintended pregnancy and abortion among young women in Comayagua, Honduras. Specific aims of the project included obtaining rates of pregnancy intention and outcome rates, including induced abortions. I also sought to measure attitudes towards abortion among the study population.

### **Chapter 2: Comprehensive Review of the Literature**

An estimated 21.6 million unsafe abortions occurred around the world in 2008 alone, with 4.2 million of those taking place in Latin America. An unsafe abortion is defined by the World Health Organization (WHO) as a procedure for terminating an unintended pregnancy carried out either by persons lacking the necessary skills or in an environment that does not conform to minimal medical standards, or both (Technical & Working Group. Geneva). Mortality rates from safe induced abortion are very low (0.6 per 100,000 procedures in the United States for example (Gold, 1990). yet when abortion is placed in an unsafe context, the risks for the woman greatly increase. A woman may attempt to induce an abortion herself or seek out a procedure in an unhygienic location with an unskilled provider. Complications from unsafe abortion are far reaching and include hemorrhaging, sepsis and death (Grimes et al., 2006). One study estimates that each year, 5 million women are admitted to hospitals with complications from unsafe abortions (S. Singh, 2006). Women may ignore signs of complications or delay seeking care to avoid interrogations from both law enforcement and members of their community. Healthcare providers are often reluctant to treat these women for fear of being accused of performing the abortion themselves and facing legal ramifications, including prison time and hefty fines. Inherently based on this definition and description, WHO considers all abortions which take place in countries where it is completely illegal to be unsafe.

Maternal mortality is reduced by less restrictive abortion laws as seen in two case studies of countries that have liberalized their abortion laws. In South Africa, abortion-related deaths dropped 91% following the passing of the Choice on Termination of Pregnancy Act in 1997. The new law increased women's access to both effective contraceptive methods and safe abortion services. When pronatalist polices were imposed in 1966 in Romania, maternal mortality began to rise and peaked at 148 deaths per 100,000 live births, with 87% of the deaths related to abortion. The reversal of said laws resulted in a drastic decline in maternal deaths and by 2002, mortality from unsafe abortions was 9 per 100,000 live

births (Grimes et al., 2006). In the United States, local, state and national data revealed a dramatic decrease in hospitalizations from abortion complications following its legalization in 1973 (Cates, 1982).

While liberalization of abortion laws can have an impact on maternal mortality, in some areas, policy changes and social movements have also proven fruitful. In Bangladesh, expanded contraception services and liberalized abortion policies have been associated with reduction in maternal mortality and the proportion of maternal deaths attributed to abortion without actually changing the abortion laws (Rahman, DaVanzo, & Razzaque, 2010). In 2004, 29% of maternal deaths were attributed to abortion in Uruguay and public health professionals teamed together to implement a harm reduction strategy in an effort to reduce this statistic (Briozzo et al., 2006). 'Harm reduction' is a range of public health policies designed to reduce the harmful consequences associated with various, sometimes illegal, human behaviors. Women were provided with options counseling, including information on dosage and signs of complications should they chose to induce a medical abortion. The intervention was proven to be highly effective, with no major complications and in 2011, there were no abortion related deaths in Uruguay (Briozzo et al., 2006). Following this public health breakthrough, abortion was legalized up to 12 weeks gestation in 2012. This intervention provides a template for other countries in Latin America with strict abortion laws in an effort to reduce maternal mortality and morbidity without changing the law.

Currently only three percent of the countries in the world have total bans on abortion, with five of these countries being in Latin America. Ninety-one percent of the 20 countries in Latin America allow for abortion to save the woman's life and 6% provide abortion upon request of the woman (Susheela Singh & Wulf, 1994). Of the 4.2 million unsafe abortions that occurred in Latin American in 2008, 1.1 million (26%) occurred in Central America (Shah & Ahman, 2010). Women obtaining abortions in Latin America are typically in their mid-20's, married/in a partnership, and already have at least one child. This contrasts with some other areas of the world such as the United States and parts of Africa where women who have abortions tend to be younger and unmarried. Surveys have indicated that most

women in Latin America report that a variety of teas and herbs can be used to induce an abortion; however their actual abortifacient properties are largely unknown and doubted among medical professionals. If these traditional methods prove fruitless, many women resort to riskier practices including insertion of objects or liquids into the uterus or the use of pharmaceuticals, such a misoprostol, which was originally marketed to treat gastric ulcers but can be used to induce an abortion. Women of lower socio-economic status or those residing in rural areas are more likely to practice this type of behavior which can lead to complications and hospitalization (Wulf, 1996).

While these numbers and statistics regarding abortion in Latin America are daunting, in many areas, they are somewhat unreliable estimations. Lack of surveillance and fear of reporting illegal activities make it difficult to quantify induced abortion in areas where it is legally restricted. Even among women who are hospitalized due to complications from abortions, misreporting is common as it may be difficult to distinguish a miscarriage from an induced abortion. Rossier reviewed the literature and reported on the 8 methods used for estimating the prevalence of induced abortion in situations where it is illegal. These methods are the illegal provider study, the complications approach, the mortality statistics approach, the self-reporting techniques, prospective studies, the residual technique, anonymous third party reports, and the expert's estimates. Of these, the self-reporting technique is easiest and most adaptable for use in clinical settings in low-resource countries. Using this approach in areas where abortion is illegal poses additional barriers and potential under-reporting even with guaranteed confidentiality of the participants (Rossier, 2003). Many other factors affect whether a woman will report her illegal abortion including specific cultural norms and beliefs as well as potential punishment, shame or stigma she may have to endure. Women of higher education and those who have had no children are more likely to seek abortions; however, this may also be that they are more likely to report an induced abortion (Santos, Andreoni, & de Souza e Silva, 2012). Despite the difficulties surrounding obtaining reports of induced abortion in these areas, improving estimates would attract

priority attention and encourage the development of realistic policies to address the problem (Okonofua, Omo-Aghoja, Bello, Osughe, & Agholor, 2010). Knowledge of women seeking abortions is also helpful in determining which subgroups have the most need for contraceptive education and access. Assessing whether clandestine abortion is widespread among women in an area can provide evidence towards building an argument for advocacy and policy changes (Boland & Katzive, 2008).

Specifically, Central America is home to 3 countries with total bans on abortion: El Salvador, Nicaragua and Honduras. While there are published studies and research on abortion in El Salvador and Nicaragua, I could find no studies from Honduras. When Nicaragua implemented a total ban on abortion in 2006, the reproductive health community was outraged. Presidential candidate Daniel Ortega teamed with the Catholic and Evangelical churches for voter support in exchange for a promise to work to ban abortion. In other countries with strong Catholic traditions, the Church often threatens politicians with promises of excommunication should they attempt to liberalize abortion laws. According to Amnesty International, rates of maternal mortality have risen since the total ban was implemented in Nicaragua and doctors are acutely aware of the real possibility of being punished for performing an abortion, even when the woman's life is in danger (Moloney, 2009). Physicians tell stories of women with cancer, HIV/AIDS and other chronic diseases being forced to continue pregnancies that make their respective conditions worse due to the ban. Teenagers have reportedly committed suicide after discovering they are pregnant (Samandari & Speizer, 2010).

The government of El Salvador implemented a total ban on abortion in 1998 and subsequently two cases have gained international fame involving women with difficult pregnancies. A woman known as Manuela arrived at a local hospital seeking emergency care while hemorrhaging after giving birth.

Doctors immediately treated her as though she had induced an abortion and called the police. She was eventually sentenced to 30 years in prison for murder without having the chance to meet with her lawyer or appeal the decision. In 2010, Manuela died while in prison and her family has since filed a law

suit against El Salvador. This legal campaign marks the first time an international judicial body will hear the case of a woman imprisoned for seeking medical care due to an obstetric emergency as a result of a total abortion ban (Zuniga-Fajuri, 2014). In 2013, doctors filed a request to perform an abortion on a young woman known as Beatriz, who was 20 weeks pregnant and suffering from lupus, renal failure and pre-eclampsia. The fetus Beatriz was carrying had anencephaly, meaning it would die within a few hours of being born at the latest. The Supreme Court of El Salvador denied the request and Beatriz was forced to carry the pregnancy to term. The campaigning group Central American Women's Network from the United Kingdom has reported that at least 24 women are serving long jail sentences for allegedly provoking abortions when having actually delivered premature babies (Arie, 2013; Hitt, 2006).

### **Abortion Attitudes**

More than 25 studies have attempted to measure abortion attitudes among different populations in Latin America. The findings from this type of research can be valuable for advocates of abortion-law reform, particularly where there is an obvious discordance between public opinion and legal status of abortion (Yam, Dries-Daffner, & Garcia, 2006). A systematic review of abortion opinion research in Latin America and the Caribbean--- before and after the watershed International Conference on Population and Development (ICPD) in Cairo in 1994, which recognized sexual and reproductive right as fundamental to women's health--- reviewed 26 studies performed between 1985 and 2005, none of which were conducted in Central America. Most of these studies utilized venue-based sampling of selected areas specific to the population of interest (universities, clinics, hospitals.) Across these studies in different countries and among different populations, the findings generally show that most respondents neither always disapprove nor always approve of abortion, conditioning their support on one or another extenuating circumstance (Yam et al., 2006). Some studies have attempted to identify statistically significant correlates of abortion opinion and various socio-demographic characteristics such

as age, educational level, sex and religiosity. Two studies found age to be negatively correlated with support for abortion while Bailey and colleagues found those of younger age to be more accepting of abortion (Bailey, Bruno, Bezerra, Queiros, & Oliveira, 2003; Wilson et al., 2012). Other associations include those with more education and who are less religious are significantly more likely to hold favorable attitudes towards abortion. These attitudes and opinions are greatly influenced by social, cultural and political factors. It is often difficult to analyze correlates of these opinions as they can be directly linked to a specific circumstance and many individuals acknowledge that acceptance of abortion greatly depends on the context in which the woman is seeking the abortion.

Despite the current literature, there is still a gap in knowledge surrounding abortion attitudes in Latin America, particularly in the geographic spread of the published studies. The vast majority have been conducted among subpopulations in Brazil or Mexico and research from low- and middle-income countries in Latin America is notoriously underrepresented in global health literature (Langer, Diaz-Olavarrieta, Berdichevsky, & Villar, 2004). Many studies found that the study population was more accepting of abortion than the current legal conditions. Notably, some studies acknowledged a difference between personal opinion on abortion and legal ramifications, for which many participants will have differing thoughts. While individuals may not agree with abortion from a cultural or religious standpoint they may disagree with a woman or provider being charged with a crime. Researchers need to identify the purpose of their study and formulate the correct questions based on their aims.

One additional study that was subsequently published and not included in the systematic review captured physician's knowledge and opinion on medical abortion via focus groups and included Honduras, Nicaragua and Puerto Rico as study sites. The study focused mostly on methods women use to obtain abortions and the availability of medicines to provoke an abortion. The participants mentioned safety as an advantage of medical abortion three times more often than mentioning it as a disadvantage. Overall the physicians in the study had knowledge of options of medical abortion and

accepted the procedure in certain situations (Espinoza, Abuabara, & Ellertson, 2004). Given the general acceptability of abortion in certain circumstances found in published studies in the region, further research is needed to establish if this trend exists in areas with more restrictive laws.

# Contraceptive Use & Unintended Pregnancy

The link between unplanned pregnancy and abortion is strong and has been documented in many studies. While increasing access to reliable and affordable contraception can reduce the need for abortion, it can never completely eliminate it. There will always be a percentage of women who experience contraceptive failure and will need access to safe and legal abortion. Women who face unintended pregnancies are highly likely to seek an induced abortion, regardless of the legal status of abortion in her area (Boland & Katzive, 2008; 2001). An estimated 40% of pregnancies globally are unplanned as a result of inconsistent use, failure, or non-use of contraception (Division, 2001). A study performed in 2008 found that intended pregnancy rates are higher than unintended pregnancy rates in all geographic regions except Latin America (S. Singh, Sedgh, & Hussain, 2010). Central America has a pregnancy rate of 125 per 1,000 women aged 15-44, resulting in 4.6 million total pregnancies for 2008 alone. Of those pregnancies, 43% were classified as unintended of which 20% ended in births, 17% in abortions and 6% in miscarriages (S. Singh et al., 2010). Unwanted and mistimed births can also pose health risks to mother and infant, for example when births are spaced too closely together, when a woman is either too young or too old to safely carry a pregnancy to term, or when she already has several children and feels unprepared to care for another child (Gipson, Koenig, & Hindin, 2008; Marston & Cleland, 2003). The potential negative consequences of unplanned births can range from rejection from one's family or society to being forced to drop out of school or quit working, particularly for younger women and those without a support system in place. This can have an impact on the woman's psychological well-being and mental health which can subsequently affect her children. One

study from Chile showed a correlation between intention status of pregnancy and children's health during the first year of life including psychomotor development and nutritional state. Those who expressed that the pregnancy had been unintended were found to have a higher percentage of missed doctor's appointments as well as a higher percentage of nutritional deficiencies among the children (Kulczycki, 2011).

Similar to measuring induced abortion, measuring the planning status of births is difficult and a subject of ongoing methodological work. Reporting the intention of a pregnancy is solely based on self-report from the woman and research has suggested that this can be dependent on when they are surveyed relative to the time of their pregnancy (Bankole & Westoff, 1998; Joyce, Kaestner, & Korenman, 2000; Koenig, Acharya, Singh, & Roy, 2006). It appears that women are more likely to report that a particular pregnancy was wanted as time passes, hence the decision to only ask about last pregnancy in many studies. Another limitation is that current methodology does not take degrees of intention into account. Improvement among the approaches used to measure pregnancy intention could potentially allow for a more refined survey tool.

The evidence that an increased uptake of effective family planning methods facilitates the decline of abortion rates is overwhelming (S. Singh, Prada, Mirembe, & Kiggundu, 2005). One study that estimated levels of induced abortion in six Latin American countries found that between half and two-thirds of unwanted pregnancies ended in abortion (Susheela Singh & Wulf, 1994). It also found an association between contraceptive failure or switching and unintended pregnancies, stating that further research is needed to delve into this relationship more as evidence suggests this is a substantial issue in Latin America.

In part because of lack of access to effective contraception, poorer women are more likely than wealthier women to have unwanted pregnancies. While some of these women will chose to terminate their pregnancy at any cost, including their personal health and freedom, others end up assuming the

responsibility for the birth of a child at an undesired time in their lives (Santos et al., 2012). This is often linked to access to healthcare and contraceptive methods, or lack thereof. Regions with high numbers of unmet need in family planning often have high reports of unintended pregnancies as well. Unmet need can be described as a woman who is fertile, sexually active and does not want to get pregnant, yet is not using any form of contraception. Women may have an unmet need for spacing (a woman who becomes pregnant too quickly following a live birth or delaying their first birth) or for limiting (the ability to decide to stop having children). Depending on the setting, non-use of family planning methods combined with failure and discontinuation of contraceptive methods are the main causes of unintended pregnancies. Another key-factor that defines this population is fear of experiencing side effects with contraception, which is often most related to the type of method used, particularly among those who chose hormonal methods (Kestler, Orozco Mdel, Palma, & Flores, 2011). Research has noted the importance of integrating contraceptive counseling for women in order to reduce this problem.

# Pregnancy Intentions and Abortion in Honduras

Honduras is the second poorest country in the Western Hemisphere, with a history straight out of a fiction novel complete with government overthrows and high rates of crime and gang activity. With a rate of 85.5 homicides per 100,000 residents (compared to the global average of 8.8 per 100,000 and the highest in the world outside of conflict areas), sensational media outlets relish in dubbing Honduras 'the most dangerous country in the world' (Rhodan, 2014). These statistics and titles only show one side of the story and fail to mention that due to its reputation, many development organizations and agencies have recently made the decision to discontinue work and projects in Honduras, including the United States Peace Corps which had previously worked in country since the 1960's. The lack of published data and research on reproductive health issues in Honduras is another example of how overlooked and misunderstood this country is.

In the last 20 years, maternal mortality in Honduras has decreased by fifty percent, which is most attributed to improved healthcare infrastructure as part of collaboration between the government, foreign aid and development agencies (Bermudez-Madriz, Saenz, Muiser, & Acosta, 2011). The maternal mortality ratio in Honduras is one of the highest in the region, currently at 100 per 100,000 live births. The lifetime risk of maternal death is currently 1 in 270 and almost 7% of deaths of women of reproductive age are attributed to maternal deaths (World Health Organization, 2010). The Demographic and Health Survey from 2011 suggests that Honduras is currently moving through the demographic transition, with a national fertility rate of 2.9, which has declined from 4.9 over the last 15 years. Women having a higher fertility rate than the national average tend to live in rural areas, have lower education level and be older. The average maternal age at first birth is 20.3 years old, which has hardly changed in the last 25 years. Women with more education and in higher wealth quintiles are more likely to have their first child at a later age. Adolescent pregnancy rose 14% in Honduras between 2005 and 2011 with 24% of young women ages 15-19 reporting having been pregnant at least once, up from 21% in 2005. Among women who had births in the last 5 years, 58% reported their most recent pregnancy as being intended. Seventy-three percent of women in a union reported using a reliable form of contraception, with the most popular method being female sterilization (22%) followed by injectables (18%.) Among women who are not in a union and sexually active, 71% reported using contraceptives. Five percent of women in Honduras have an unmet need for limiting and 6% have an unmet need for spacing, with a combined unmet need for family planning at 11%.

The current penal code in Honduras does not allow for abortion under any circumstances (Codigo Penal de Honduras, 1984). Those who are discovered to have performed an abortion are subject to three to ten years in prison, depending on the involvement of the woman, and a hefty fine. The woman herself is subject to three to six years of prison time and if a person is found to have accidentally caused an abortion due to an act of violence, they are also subject to punishment. In the 1980s and

1990s, the issue of abortion gained renewed interested in Latin American politics, Honduras included. The emphasis was shifted from one of moral debates to concerns over maternal morbidity and mortality, which were on the rise in the region. Despite the majority of population identifying as Catholic, the public began showing support for therapeutic abortions. This period saw swift movements to both liberalize and restrict abortion laws. Transitions to an increased global focus on women's human rights through a health framework, state adherence to international law and a public discourse increasingly favoring liberalization occurred in conjunction with strong Church-led opposition to reproductive choice (Reutersward, Zetterberg, Thapar-Bjorkert, & Molyneux, 2011). At one point abortion was allowed in Honduras to save the life or health of the woman as well in cases of rape, incest or fetal anomaly. In 1985, the previously mentioned provisions were removed from the penal code and harsher punishments were put in place. Since that time, Honduras has seen several shifts in political regimes and social policies in both directions however the total ban on abortion has not been reviewed. Currently there is no published research on attitudes towards abortion in Honduras or its relationship to reproductive health and unintended pregnancy.

# **Chapter 3: Manuscript**

### **Student Contribution**

The student was responsible for activities at each stage of the research project from initial study design all the way through analysis and composition of this manuscript. The student designed the survey instruments, trained research assistants, piloted the survey in country and oversaw data collection.

Following the finalization of data collection, the student entered and analyzed data and reported on the findings. Co-authors included Dr. Roger Rochat, Dr. Melissa Kottke and Dr. Eva Lathrop who guided the research and analytic process.

#### Abstract

**Background:** Central America contributed 1.1 of the 4.2 million unsafe abortions that occurred in Latin American in 2008. Honduras is one of the three countries in the region that have complete bans on abortion and has the 2<sup>nd</sup> highest maternal mortality rate in the region at 100 deaths per 100,000 live births. Little research has been published on reproductive health in Honduras, where 58% of women report their most recent pregnancy as unintended.

**Objective:** The main objective of this study was to investigate the frequency of unintended pregnancy and abortion among women ages 18-24 present in health clinics in Comayagua, Honduras. We also sought to obtain information surrounding the attitudes towards abortion in specific circumstances among the study participants and how those attitudes fluctuate based on certain demographic characteristics.

**Methods:** 209 ever-pregnant women 18-24 years old participated in the four part survey which was administered in Spanish and translated for synthesis. Descriptive statistics and multinomial regression models were run using STATA version 13.

**Results:** Seventy-four percent reported not using any type of contraceptive immediately prior to their last pregnancy and 48% reported that the pregnancy was unintended. Endangerment of the woman's life garnered the most support for acceptability of abortion with 71% responding 'yes' (40%) or 'maybe' (31%). Both women in partnerships (RR=4.31, 95% CI 1.43-13.02) and with higher education levels (RR=2.21, 95% CI 1.19-4.08) were more likely to be accepting of an abortion when the woman's life was in danger. Women with higher income were more likely to accept abortion in cases of a fetal anomaly (RR=1.71, 95% CI 1.02-2.86).

**Discussion:** This study is unique in that it is the first of its kind to be conducted in Comayagua and it provides a baseline of attitudes towards abortion in Honduras. The reported number of induced abortions is far lower than expected, however we anticipated both misreporting and underreporting. Given the discordance between the opinions of the participants and the abortion laws in Honduras, the argument can be made that Honduran women in Comayagua may be accepting of a limited liberalizing of the current laws.

#### Introduction

An estimated 21.6 million unsafe abortions occurred around the world in 2008 alone, with 4.2 million of those taking place in Latin America. An unsafe abortion is defined by the World Health Organization (WHO) as a procedure for terminating an unintended pregnancy carried out either by persons lacking the necessary skills or in an environment that does not conform to minimal medical standards, or both (Technical & Working Group. Geneva). Mortality rates from safe induced abortion are very low (0.6 per 100,000 procedures in the United States for example (Gold, 1990). yet when abortion is placed in an unsafe context, the risks for the woman greatly increase. A woman may attempt to induce an abortion herself or seek out a procedure in an unhygienic location with an unskilled provider. Complications from unsafe abortion are far reaching and include hemorrhaging, sepsis and death (Grimes et al., 2006). One study estimates that each year, 5 million women are admitted to hospitals with complications from unsafe abortions (S. Singh, 2006). Women may ignore signs of complications or delay seeking care to avoid interrogations from both law enforcement and members of their community. Healthcare providers are often reluctant to treat these women for fear of being accused of performing the abortion themselves and facing legal ramifications, including prison time and hefty fines. Inherently based on this definition and description, WHO considers all abortions which take place in countries where it is completely illegal to be unsafe.

Currently only three percent of the countries in the world have total bans on abortion, with five of these countries being in Latin America. Ninety-one percent of the 20 countries in Latin America allow for abortion to save the woman's life and 6% provide abortion upon request of the woman (Susheela Singh & Wulf, 1994). Central America contributed 1.1 of the 4.2 million unsafe abortions that occurred in Latin American in 2008 (Shah & Ahman, 2010). Specifically, Central America is home to 3 countries with total bans on abortion: El Salvador, Nicaragua and Honduras. There has been little investigation into the status of reproductive health and abortion in Honduras, which has the 2<sup>nd</sup> highest maternal mortality

rate in the region at 100 deaths per 100,000 live births. Among women who had births in the last 5 years, 58% reported their most recent pregnancy as being intended. While contraceptive prevalence is high among all women, it is lowest among adolescents (56%) and the adolescent pregnancy rate is currently 24% and rising (Demographic and Health Survey, 2011).

The main objective of this study was to investigate the frequency of unintended pregnancy and abortion among women ages 18-24 present in health clinics in Comayagua, Honduras. We also sought to obtain information surrounding the attitudes towards abortion in specific circumstances among the study participants and how those attitudes fluctuate based on certain demographic characteristics. While previous studies have reported on attitudes towards abortion from a provider point of view (medical students, physicians, etc.) this paper is the first report of attitudes towards abortion of young women in Honduras.

### Methods

The study consisted of a cross-sectional survey administered to ever-pregnant women between the ages of 18 and 24 present in 4 local health clinics in Comayagua, Honduras. Research assistants were recruited and trained for a week on data collection methods, confidentiality, and administration of the survey. Research assistants spent one week in each of the 4 public clinics in the region for 3 hours a day. Utilizing the patient intake list provided by the clinic, a new list was generated with only women ages 18-24. Participants were selected from the list using a random number generator. A total of 209 ever-pregnant women ages 18-24 participated in the study. Eight women were excluded based on being pregnant with their first child. Five women refused to participate after being screened for eligibility, typically stating that they did not want to take the time to complete the survey.

The questionnaire was composed of four separate sections on demographic characteristics, family planning, pregnancy outcomes and abortion attitudes and was designed utilizing questions previously tested and validated in other research. Each participant was asked to report their total

number of pregnancies and then asked specific questions regarding each one. When asking about intention of pregnancy, participants were asked if they wanted to become pregnant then (wanted), later (mistimed) or not at all (unwanted). This methodology is consistent with other studies looking at pregnancy intention. Data from the United States suggest that fewer than 5 percent of abortions are performed for pregnancies that were intended at the time of conception (Finer and Henshaw 2006). Therefore, those who classified their pregnancies as 'mistimed' or 'unwanted' were also asked if they ever considered terminating the pregnancy. The abortion attitudes section consisted of 5 circumstances in which the participant was asked whether abortion should be an opinion. The original answer options of a 5-point Likert scale was changed to 'yes', 'no' and 'maybe' due to participant confusion during the pilot portion of the survey. We used Cronbach's alpha to measure the internal validity of questions as a scale.

Given the sensitive nature of the study, the importance of securing a confidential and private space in which to administer the survey was critical. Study staff was able to obtain a private space in which to administer the survey. Due to concerns about confidentiality interview and low literacy levels among some respondents, research assistants read the informed consent to each participant, which included the assurance that care would not be compromised if the woman refused to participate.

The study protocol was submitted to the Emory Institutional Review board which determined it was not generalizable research subject to IRB review. Permission to conduct the study was obtained from both the regional director of the Ministry of Health as well as the medical director of each individual clinic. Data were analyzed using STATA version 13.1. Descriptive analyses were run along with linear regression models to measure associations of abortion attitudes and a variety of demographic and reproductive health indicators. A level of significance of 5% was adopted in all analyses.

#### **RESULTS**

# **Demographics**

Most participants completed elementary school (54%) and were in a partnership, either married (10%) or in a civil union (69%). Most respondents had low-income, and nearly two-thirds (64%) reported that their monthly household income was less than 5,000 lempiras, or less than the national minimum wage (5,800 lempiras). All participants reported living with some type of family member, with those who reported being single more likely to report living with extended family such as grandparents or aunts and uncles than those in partnerships. Results did not differ when stratified by clinic and are therefore reported jointly. Over half of the participants (62%) came from the Jose Maria Ochoa clinic with 34% representing the Napelon Bogran clinic. The distribution of clinic representation is mostly likely related to the number of patients at each location as researchers spent the same amount of time at each of the four clinics.

# **Reproductive Health**

Approximately half (49%) of the women reported using 'anything that a woman or couple uses to prevent pregnancy.' Among those using contraception, injections were most prevalent (58%), with the IUD coming in at a distant second (14%). Reported past contraceptive use was slightly higher at 59% which could be related to the percentage of participants (17%) who were pregnant at the time of the study. Those who reported not currently using a contraceptive method were asked why; 55% answered because they were 'not sexually active,' The option 'other' accounted for 30% of responses with many women expressing concerns from potential side effects, either experienced personally or heard anecdotally from others or that they simply 'did not like' to use a family planning method.

Over half (56%) of the women reported having had one pregnancy, with almost all having 2 or fewer (86%), resulting in a total of 331 reported pregnancies among the participants. The mean age at first pregnancy was 17.4 years, with a standard deviation of 2.01. Due to concerns of recall bias,

calculations were performed based on last pregnancy, which for 56% of the women, was also their only pregnancy. Seventy-four percent reported not using any type of contraceptive immediately prior to their last pregnancy and 48% reported that the pregnancy was unintended. Among those with more than one pregnancy, short birth interval (65% for second pregnancy and 63% for third pregnancy) was consistently seen as the reason why a pregnancy was classified as unintended. With each successive pregnancy, the proportion wanting to terminate the pregnancy increased, with 10% responding 'yes' for the first pregnancy. The number rose to 15% and 25% for the 2<sup>nd</sup> and 3<sup>rd</sup> pregnancies, respectively. The total number of reported miscarriages was 19, accounting for 6% of the total pregnancies. The total reported abortion rate among all study population's pregnancies is extremely low at 0.6% (n=2).

### **Attitudes towards abortion**

The final portion of the survey consisted of five questions in an effort to measure the attitudes towards accepting abortion in certain circumstances. Those who responded 'don't know' to the questions were grouped with those who responded 'maybe' based on the assumption from researchers that both groups of respondents are expressing a level of uncertainty regarding the question. (Table 3)

Endangerment of the woman's life garnered the most support for acceptability with 71% responding 'yes' (40%) or 'maybe' (31%). Most respondents expressed acceptance for women seeking abortions in cases of rape or fetal anomaly with 54% responding 'yes' or 'maybe' to both circumstances. The most unaccepted situation was that of unmarried teenagers, where 3% were in support of the option of abortion. Only 3% (n=2) of the participants replied 'yes' to all 5 circumstances while 24% (n=17) responded 'no' to all and 37% (n=78) responded 'maybe' to all situations. An index was created to gauge those who answered 'yes' to at least one of the circumstance and 31% said 'yes' to 2 of the situations presented in the survey while 20% responded 'yes' to one.

# Influence of Demographic Characteristics on Abortion Attitudes

Based on the answers yes, no and maybe were provided to participants as options when asked about their attitudes towards abortion, multinomial regression models were run to determine if certain characteristics could be correlated with the findings. Due to the low Cronbach's alpha score (0.38), a separate model was performed with each of the questions as the sole outcome. Predictors included in the models included marital status, education level, income, parity, age at first pregnancy, family planning use and intention of last pregnancy. Maybe was chosen as the referent group based on being a dominant answer for many participants and the most difficult to ascertain exactly what the answer reveals about attitudes towards abortion. Relative risk ratios were calculated and while it was found that there were associations between some of the predictors in the model, very few of the risks were statistically significant. Both women in partnerships (RR=4.31, 95% CI 1.43-13.02) and with higher education levels (RR= 2.21, 95% CI 1.19-4.08) were more likely to be accepting of an abortion when the woman's life was in danger. Women with higher income were more likely to accept abortion in cases of a fetal anomaly (RR=1.71, 95% CI 1.02-2.86). All other models and outcomes were not statistically significant (Table in appendix).

Table 1: Distribution of women aged 18-24, by selected characteristics, Comayagua, Honduras, 2013 (N=209)

Characteristic		N (%)
Clinic	Jose Maria Ochoa	80 (62%)
	Napelon Bogran	71 (34%)
	Francisco Rodriguez	27 (13%)
	Emmanuel	31 (15%)
Education Completed	None	33 (16%)
	Primary School	113 (54%)
	Secondary School	60 (29%)
	Technical School	2 (1%)
	College	1 (<1%)
Marital Status	Married	20 (10%)
	Civil Union	145 (69%)

	Single Separated/Widow	39 (19%) 5 (2%)
Monthly Income <sup>a</sup>	0-1,000 1,001-5,000 5,001-10,000 More than 10,000 Don't Know/Denied	15 (7%) 119 (57%) 66 (32%) 1 (<1%) 8 (4%)

<sup>&</sup>lt;sup>a</sup>Reported in lempiras (20 lempiras = U.S. \$1.00) Minimum monthly salary in Honduras is 5,800 lempiras.

Table 2: Distribution of women, by selected contraceptive use and pregnancy outcome characteristics

Characteristic		N (%)
Currently using family planning <sup>a</sup>	Yes	102 (49%)
	No	107 (51%)
Type of family planning <sup>a</sup>	Condom	5 (5%)
	IUD	14 (14%)
	Sterilization	11 (11%)
	Injection	59 (58%)
	The Pill	10 (10%)
	Natural Method*	3 (3%)
Number of pregnancies <sup>b</sup>	One	118 (56%)
. •	Two	63 (30%)
	Three	25 (12%)
	Four	3 (1%)
Pregnancy Outcome <sup>c</sup>	Live Birth	301 (91%)
-	Miscarriage	19 (6%)
	Abortion	2 (<1%)
	Stillbirth	9 (3%)
Currently Pregnant	Yes	36 (17%)
, 0	No	171 (82%)
Age at first pregnancy	Mean age: 17.4	
	Standard Deviation: 2.01	
Intention of last pregnancy	Wanted	108 (52%)
	Mistimed	46 (22%)
	Unwanted	54 (26%)
Intention to abort any	Yes	21 (13%)
pregnancyd	No	143 (87%)

<sup>&</sup>lt;sup>a</sup>Defined as: any method that a woman or couple uses to prevent pregnancy

<sup>&</sup>lt;sup>b</sup>Not including current pregnancy for those who were pregnant

Table 3: Distribution of women, by selected abortion attitudes

Abortion should be an option:		N (%)
For unmarried adolescents	Yes	8 (4%)
	No	172 (82%)
	Maybe/Don't Know <sup>a</sup>	29 (14%)
When a woman who has been	Yes	62 (30%)
raped	No	97 (46%)
	Maybe/Don't Know <sup>b</sup>	50 (24%)
When the woman's life is in	Yes	92 (44%)
danger	No	52 (25%)
	Maybe/Don't Know <sup>c</sup>	65 (31%)
For a woman who has 5	Yes	40 (19%)
children and lives in extreme	No	152 (73%)
poverty	Maybe/Don't Know <sup>d</sup>	17 (8%)
When there is a fetal anomaly	Yes	77 (37%)
	No	96 (46%)
	Maybe/Don't Know <sup>e</sup>	34 (16%)

<sup>&</sup>lt;sup>a</sup>Don't know n=1 (<1%)

### Discussion

# **Study Highlights**

- First study conducted in Comayagua and study population appears to differ from the most recent national survey
- First study in Honduras on abortion attitudes
- Substantial variation in support for abortion was found depending on the circumstance
  - o Higher education associated with support for abortion to save the woman's life
  - o An overall very high proportion of participants responded 'maybe'
- High reported incidence of unwanted pregnancy
  - Moderate interest in seeking abortion
  - Uncommon reporting of induced abortion
  - o Despite draconian law, 2 women reported having had abortions

<sup>&</sup>lt;sup>c</sup> These distributions reflect the total number of pregnancies (331) contributed by the sample population <sup>d</sup>Only those who classified their pregnancies as mistimed or unwanted were asked whether they considered terminating the pregnancy

<sup>&</sup>lt;sup>b</sup>Don't know n=14 (7%)

<sup>&</sup>lt;sup>c</sup>Don't know n=8 (4%)

dDon't know n=2 (1%)

<sup>&</sup>lt;sup>e</sup>Don't know n=12 (6%)

This study provides information surrounding reproductive health behaviors and attitudes towards abortion among young women present at clinics in Comayagua, Honduras. This study is unique in that it is the first of its kind to be conducted in Comayagua and it provides a baseline of attitudes towards abortion in Honduras. The most important finding is that the attitudes towards abortion among the study population appear to be more accepting than the current legal standing.

When comparing the results from this study to the 2011 Demographic and Health Survey (DHS) in Honduras, the study population appears more vulnerable than the DHS sample. The women who participated in this study have a lower contraceptive prevalence and experienced their first pregnancy at a younger age. Concerns from participants surrounding side effects of contraceptives as a reason for non-use suggest inadequate contraceptive education. Furthermore, a high percentage of women with subsequent unwanted pregnancies indicated lack of birth spacing as their reason for not wanting another pregnancy. Both findings suggest a need to improve contraceptive education and counseling.

Measuring illegal activity such as drug use, criminal activity and induced abortions is difficult. In some places, women are more likely to report having induced abortions, despite legal restrictions. A study of adolescent females found that 20% reported having had at least one abortion in their lifetime in Nigeria, an area with strict abortion laws (Okereke, 2010). Research on abortion in legally restricted settings implies additional ethical and logistical obstacles to a naturally socially sensitive issue which affect the possibility of obtaining valid information, particularly when it involves women who have had illegal abortions (Zamberlin, Romero, & Ramos, 2012). Several different methodologies have been utilized in an attempt to obtain reports of illegal abortions. In this study, the reported number of induced abortions is far lower than expected, however we anticipated both misreporting and underreporting.

The abortion attitudes reported from participants appear to have a certain amount of discordance from current abortion laws in Honduras. The Crohnbach's alpha score (0.38) obtained from

combining the abortion attitude questions is explainable based on the small number of items in the scale and that each question is potentially influenced by a different set of beliefs and ideals based on the context. More research is needed in this area to generate more nuanced items and explore the underlying constructs and attitudes that influence acceptance of the different items.

The authors hypothesize that women may not approve of abortion under conditions common to them: early age childbearing and poverty. The attitude that received the least amount of support (abortion for unmarried adolescents) may have been influenced by the fact that most participants experienced their first pregnancy during their adolescence. This question may have received different responses had the participants not experienced a pregnancy during their teenage years. Most reported having monthly income lower than the minimum wage and the reason of poverty as why a woman would obtain an abortion may not have been seen as justifiable by the majority of the study population. The three cases that received the most support align with the abortion laws in some of the world, including parts of Latin America. Allowing abortion as an option in cases of rape, woman's life endangerment and fetal anomaly are at times viewed as being less harmful or that it is not the woman's fault. Guilt and blame are often present in a country with strong Catholic traditions such as Honduras, which can explain why those specific cases were more favored than the others (Lindsay-Hartz, 1984).

While the semantics surrounding the word maybe and its specific connotations can be argued by linguistics, many of the participants did not completely reject entertaining the option of abortion. One possible explanation is that participants had never considered in which circumstances a woman should be allowed to obtain an abortion. Considering the social and cultural climate in Honduras, it is possible that a topic such as abortion is never or rarely discussed, particularly in support of the act. It could also be argued that participants simply answered no because of a lack of understanding of the question itself or fear of ramification. From a policy perspective, the Honduras legal system should take into account

public opinion and consider reinstating the prior allowances for abortion in cases of rape, incest, women's life and fetal anomaly.

### Limitations

This study has several possible limitations. By convenience sampling those present in the four health clinics, we cannot generalize the findings beyond that specific population. The use of research assistants to administer the survey as opposed to offering the participants the opportunity to complete the survey themselves could have resulted in untruthful reporting due to concerns about confidentiality. The potential for social desirability bias especially in regards to questions about contraceptive use, pregnancy outcomes and attitudes on abortion is also a limitation, particularly in a region like Honduras which is socially conservative and where abortion is completely illegal. Measuring an individual's attitudes towards a certain behavior or practice (such as abortion) can be dependent on other factors and by not using a test-retest among the participants; it is possible their attitudes towards abortion may have changed had they been retested.

### **Conclusions**

This study attempted to measure the relationship between unintended pregnancy and abortion and attitudes toward abortion among young women in a clinic-based population in Comayagua, Honduras. More research is needed in both the topical area of abortion in Latin America and specifically in countries like Honduras for both its abortion laws and socio-economic status. Additional research is also needed to further explore the acceptability of abortion not only on a social level but also its legal standing. Over half of the respondents acknowledged either support or potential acceptability of abortion in cases of rape, woman's life endangerment and fetal anomaly. Given the discordance between the opinions of the participants and the abortion laws in Honduras, the argument can be made that Honduran women in Comayagua may be accepting of a limited liberalizing of the current laws.

Improving the education of Comayaguan girls may lead to increased population support for decriminalization of abortion.

### **Chapter 4: Conclusions and Policy Recommendations**

"The question is not whether we agree with abortion. Legal or not, statistics show that women will have abortions. The choice is between the life or death of these women. Keeping punitive abortion laws in place means opting for death" S. de la Barreda

- 1. As evidenced by this study, the rate of unintended pregnancy is high among the study population at 48% and continues to increase with parity. Nearly all the participants experienced their first pregnancy as an adolescent, suggesting a high level of sexual activity among youth. Policies and programs promoting sexual abstinence are inappropriate of this population; an approach including comprehensive sexual education including information on contraception and use of condoms must be implemented to assist in reducing the number of unintended pregnancies.
- 2. The participants in this study appeared to be more vulnerable than the national average, including reporting lower education levels and monthly income. These women also reported a lower rate of contraceptive use and having their first child at a younger age than national statistics. Despite Comayagua being one of the largest cities in Honduras, the Ministry of Health must work together with the Ministry of Education and other local agencies to encourage young women to obtain education and prevent unintended pregnancies. Designing strategies to improve resilience among this population can prove successful on an individual and government level.
- 3. The attitudes towards abortion in specific circumstances presented in this study showed discordance between the participant's opinions and the current legal standing of abortion.
  Policymakers and pro-choice activists can utilize this data to encourage politicians to rescind the complete ban on abortion in Honduras and allow for abortion in cases of rape/incest, woman's life endangerment and fetal anomaly as previously permitted. By partially decriminalizing

- abortion, the maternal mortality rate in Honduras will continue to decline and the percentage of maternal deaths caused by abortion will decrease.
- 4. Findings from this study indicate area in which more information is needed. A renewed interest in reproductive health in Honduras among public health professionals is needed. Qualitative studies focusing on perceptions of pregnancy and contraception are needed to better understand the population and design more effective interventions and policies. While the data collected in the study indicated a low rate of abortion, many anecdotal studies were told to the researchers regarding women seeking and obtaining abortions. Studies testing other methodologies to quantify abortions in areas where legally restricted are needed to compare with the data from this study.

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Appendix A. Table 4. Adjust risk ratios (and 95% confidence intervals) from logistic regression analyses assessing associations between acceptance of abortion for unmarried adolescents and selected characteristics

Characteristic	Maybe/Don't know (ref)	Yes	No
Education	1.00	1.04 (0.31-3.47)	0.57 (0.31-1.06)
Marital Status	1.00	0.52 (0.07-3.84)	1.06 (0.32-3.52)
Number of pregnancies	1.00	3.17 (0.55-18.42)	1.49 (0.61-3.63)
Income	1.00	1.02 (0.42-2.49)	0.87 (0.55-18.42)
Currently using family planning	1.00	0.38 (0.06-2.43)	0.47 (0.18-1.22)
Age at first pregnancy	1.00	1.01 (0.62-1.65)	1.15 (0.92-1.44)
Intention of last pregnancy	1.00	0.10 (0.18-4.53)	0.98 (0.43-2.24)

Table 5. Adjust risk ratios (and 95% confidence intervals) from logistic regression analyses assessing associations between acceptance of abortion for cases of rape and selected characteristics

Characteristic	Maybe/Don't know (ref)	Yes	No
Education	1.00	1.35 (0.76-2.41)	1.13 (0.66-1.94)
Marital Status	1.00	0.51 (0.18-1.45)	0.91 (0.33-2.51)
Number of pregnancies	1.00	1.06 (0.47-1.11)	1.88 (0.87-4.05)
Income	1.00	0.71 (0.46-1.11)	0.78 (0.52-1.16)
Currently using family planning	1.00	1.24 (0.53-2.92)	0.82 (0.38-1.76)
Age at first pregnancy	1.00	0.97 (0.78-3.04)	1.22 (1.00-1.49)
Intention of last pregnancy	1.00	1.41 (0.66-3.04)	0.82 (0.40-1.66)

Table 6. Adjust risk ratios (and 95% confidence intervals) from logistic regression analyses assessing associations between acceptance of abortion for woman's life endangerment and selected characteristics

Characteristic	Maybe/Don't know (ref)	Yes	No
Education	1.00	1.01 (0.60-1.69)	0.45 (0.24-0.84)
Marital Status	1.00	0.23 (0.08-0.70)	0.13 (0.04-0.44)
Number of pregnancies	1.00	0.75 (0.37-1.53)	0.59 (0.25-1.38)
Income	1.00	0.75 (0.49-1.15)	0.91 (0.59-1.42)
Currently using family planning	1.00	1.22 (0.61-2.45)	1.76 (0.74-4.19)
Age at first pregnancy	1.00	0.94 (0.78-1.12)	0.99 (0.79-1.22)
Intention of last pregnancy	1.00	1.18 (0.61-2.28)	0.74 (0.34-1.64)

Table 7. Adjust risk ratios (and 95% confidence intervals) from logistic regression analyses assessing associations between acceptance of abortion for cases of extreme poverty and selected characteristics

Characteristic	Maybe/Don't know (ref)	Yes	No
Education	1.00	0.72 (0.31-1.69)	0.82 (0.39-1.73)
Marital Status	1.00	1.13 (0.24-5.27)	1.57 (0.39-6.30)
Number of pregnancies	1.00	0.86 (0.25-3.01)	0.63 (0.21-1.92)
Income	1.00	0.83 (0.44-1.57)	0.89 (0.52-1.53)
Currently using family planning	1.00	0.59 (0.16-2.21)	0.63 (0.19-2.02)
Age at first pregnancy	1.00	0.91 (0.65-1.27)	0.96 (0.71-1.29)
Intention of last pregnancy	1.00	0.51 (0.15-1.74)	0.37 (0.12-1.10)

Table 8. Adjust risk ratios (and 95% confidence intervals) from logistic regression analyses assessing associations between acceptance of abortion for fetal anomaly and selected characteristics

Characteristic	Maybe/Don't know (ref)	Yes	No
Education	1.00	0.90 (0.48-1.69)	0.91 (0.50-1.63)
Marital Status	1.00	0.45 (0.12-1.66)	0.36 (0.10-1.26)
Number of pregnancies	1.00	1.01 (0.41-2.48)	0.79 (0.33-1.85)
Income	1.00	0.58 (0.35-0.98)	0.82 (0.53-1.26)
Currently using family planning	1.00	0.97 (0.40-2.34)	1.25 (0.53-2.94)
Age at first pregnancy	1.00	1.04 (0.83-1.31)	0.94 (0.75-1.17)
Intention of last pregnancy	1.00	0.74 (0.32-1.69)	0.87 (0.39-1.95)

## Appendix B. Informed Consent and Survey in Spanish

## Salud Reproductiva de Mujeres, Comayagua, Honduras Junio 2013

<b>ENCUESTADOR LEA LO SIGUENTE A C</b>	ADA PARTICIPAN	ITE:		
Hola! Me llamo Estoy t realizando un estudio sobre planificad opiniones de las personas acerca de la será utilizada para orientar la futura i cuidad.	ción familiar. El pr a planificación fan	opósito ( niliar en	de la enc Comaya	cuesta es para informar sobre las gua. La información que obtenga
Con tal motivo, me gustaría hacerle u durara aproximadamente 20 minutos brinde es estrictamente confidencial contestar una pregunta y puede term participar, no tendrá ningún inconvier	. Su participación y permanecerá en inar con la encue	es volun absolut sta en cu	itaria y to a reserva	oda la información que usted nos a. Usted tiene el derecho a no
¿Usted tiene entre 18 y 24 años?		Sí	No	
¿Usted está de acuerdo en participar?	?	Sí	No	
NUMERO DE PARTICIPANTE:	_CLINICA:			_HORA INICIO:

	RMACION DEMOGRAFICIA	
ENCUESTADOR DIGA: En		
Pregunta	Respuesta	
1A. ¿En qué mes y año nació usted?	Mes [] Año []	
	Negado98	
	No sabe99	
2A. ¿Cuál es su nivel de	Ninguno1	
educación?	Escuela2	
	Colegio3	
	Escuela de oficios4	
	Universidad5	
	Pos-Grado6	
	Negado98	
	No sabe99	
3A. ¿En que cuidad vive?	Comayagua1	
	La Maní2	
	San Jerónimo3	
	La Paz4	
	Flores5	
	Siguatepeque6	
	La Libertad7	
	Ajuterique8	
	Leja maní9	
	Cané10	
	Otro:11	
	Negado98	
	No sabe99	
4A. ¿Cuál es su estado civil?	Casada1	
	Unión libre2	
	Soltera3	
	Separada4	
	Divorciada5	
	Viuda6	
	Negado98	
	No sabe99	
5A. ¿Cuál es su ingreso	0-1,0001	
mensual?	1,000-5,0002	
	5,001-10,0003	
	Más que 10,0014	
	Negado98	

	No sabe99	
6A. ¿Con quién vive?	Esposo1	
(Más que una respuesta	Pareja2	
posible)	Padres3	
•	Hijo/s4	
	Madre5	
	Padre6	
	Otra familia7	
	Amigos8	
	Negado98	
	No sabe99	
7A. ¿Actualmente esta	Si1	
embarazada?	No2	
	Negado98	
	No sabe99	
8A. ¿Cuantos embarazos ha	[]	Si la pregunta
tenido?		anterior es no y
		contesta 0 aquí
		→ Fin

LA PLANIFICACION FAI		
ENCUESTADOR DIGA: Ahora		
Pregunta	Respuesta	
1B. ¿Ha utilizado algún	Si1	
método de planificación	No2	
familiar en el pasado?		
(DEFINE: Cualquier método	Negado98	
que una mujer o pareja utiliza	No sabe99	
para prevenir un embarazo.)		
2B. ¿Actualmente está	Si1	
utilizando un método de	No2	→ 4B.
planificación?		
	Negado98	
	No sabe99	
3B. ¿Cuál método de	Pastilla1	
planificación está utilizando?	DUI2	
	Inyección3	
	Condón4	
	Interrupción del coito/Retiro5	
	Esterilización6	
	El Collar7	
	Otro método natural8	

	Negado98
	No sabe99
4B. ¿Por qué no está	Desea embarazarse1
utilizando un método de	Costo2
planificación?	Prohibido por la religión3
(Mas que una respuesta	Objeciones de la pareja4
posible.)	Objeciones de la familia5
	No le preocupa salir embarazada6
	No esta sexualmente activa7
	Actualmente está embarazada8
	Otro9
	Negado98
	No sabe99

## **HISTORIA DE EMBARAZOS**

ENCUESTADOR: Me gustaría preguntarle sobre todos sus embarazos y partos. Empezaremos con su primer embarazo y seguimos adelante. Por favor sea específica y reporte cada embarazo que usted ha tenido.

Numero de	¿Cuantos años tenía cuando salió embarazada la	¿Estaba planificando cuando salió	
embarazo	primera vez?	embarazada?	Resultado del embarazo
			Parto Único1
			Parto Múltiple2
			Muerte fetal3
			Aborto espontaneo4
			Aborto inducido5
		Si1	Negado98
1	[] Años	No2	No sabe99

Pregunta	Respuesta	
1C. ¿Cuándo salió	Deseaba un embarazo en el momento1	→4C.
embarazada la primera vez,	Deseaba un embarazo más tarde2	$\longrightarrow_{2C.}$
deseaba un embarazo en el	No deseaba un embarazo3	<b>→</b> 2C.
momento, deseaba un		
embarazo más tarde o no	Negado98	
deseaba un embarazo en	No sabe99	
ningún momento?		
2C. ¿Por qué no deseaba un	Costo1	
embarazo? (Más que una	Embarazo muy seguido2	
respuesta posible.)	Falta de pareja y/o apoyo3	
	Estaba estudiando/trabajando4	
	No era aceptable según la sociedad/mi familia5	
	Ya no quiere tener hijos6	
	Otro:7	
	Negado98	
	No sabe99	
3C. ¿En algún momento,	Si1	
quiso interrumpir el	No2	
embarazo?		
	Negado98	
	No sabe99	

4C. ¿Con quién discutió su embarazo? (Más que una respuesta posible)	Esposo	
	Negado98 No sabe99 PREGUNTAS HASTA QUE HA CONTESTADO TODAS LAS ITAS SOBRE TODOS SUS EMBARAZOS*	

Numero	Cuantos años tenía cuando salió	Estaba planificando	
de	embarazada la	cuando salió	
embarazo	segunda vez?	embarazada?	Resultado del embarazo
			Parto Único1
			Parto Múltiple2
			Muerte fetal3
			Aborto espontaneo4
			Aborto inducido5
		Si1	Negado98
2	[] Años	No2	No sabe99

Pregunta	Respuesta	
1C. ¿Cuándo salió	Deseaba un embarazo en el momento1	$\longrightarrow$ 4C.
embarazada la segunda vez,	Deseaba un embarazo más tarde2	$\longrightarrow_{2C.}$
deseaba un embarazo en el	No deseaba un embarazo3	→2C.
momento, deseaba un		
embarazo más tarde o no	Negado98	
deseaba un embarazo en	No sabe99	
ningún momento?		
2C. ¿Por qué no deseaba un	Costo1	
embarazo? (Más que una	Embarazo muy seguido2	
respuesta posible.)	Falta de pareja y/o apoyo3	
	Estaba estudiando/trabajando4	
	No era aceptable según la sociedad/mi familia5	
	Ya no quiere tener hijos6	
	Otro:7	
	Negado98	
	No sabe99	

26 (51-/	C: 4	
3C. ¿En algún momento,	Si1	
quiso terminar con el	No2	
embarazo?		
	Negado98	
	No sabe99	
4C. ¿Con quién discutió su	Esposo1	
embarazo?	Pareja2	
(Más que una respuesta	Padres3	
posible)	Pastor/Padre de iglesia4	
	Madre5	
	Padre6	
	Amigos7	
	Otro:8	
	Negado98	
	No sabe99	

Numero de	¿Cuantos años tenía cuando salió embarazada la	¿Estaba planificando cuando salió	
embarazo	segunda vez?	embarazada?	Resultado del embarazo
			Parto Único
		C: 1	Aborto inducido5
3	[] Años	Si1 No2	Negado98 No sabe99

Pregunta	Respuesta	
1C. ¿Cuándo salió	Deseaba un embarazo en el momento1	→ <sub>4C.</sub>
embarazada la tercera vez,	Deseaba un embarazo más tarde2	$\longrightarrow_{2C.}$
deseaba un embarazo en el	No deseaba un embarazo3	<b>→</b> 2C.
momento, deseaba un		
embarazo más tarde o no	Negado98	
deseaba un embarazo en	No sabe99	
ningún momento?		
2C. ¿Por qué no deseaba un	Costo1	
embarazo? (Más que una	Embarazo muy seguido2	
respuesta posible.)	Falta de pareja y/o apoyo3	
	Estaba estudiando/trabajando4	
	No era aceptable según la sociedad/mi familia5	
	Ya no quiere tener hijos6	
	Otro:7	

	Negado98
	No sabe99
3C. ¿En algún momento,	Si1
quiso terminar con el	No2
embarazo?	
	Negado98
	No sabe99
4C. ¿Con quién discutió su	Esposo1
embarazo?	Pareja2
(Más que una respuesta	Padres3
posible)	Pastor/Padre de iglesia4
	Madre5
	Padre6
	Amigos7
	Otro:8
	Negado98
	No sabe99

ENCUESTADOR: Suma la cantidad de embarazos que la participante ha reportado y confirme con ella.

ENCUESTADOR: Usted ha reportado que ha tenido \_\_\_\_ embarazos. ¿Es cierto?

ENCUESTADOR: Si la participante olvido un embarazo, escríbelo arriba.

ENCUESTADOR: Ahora le preg	untare sobre el aborto inducido, o sea un aborto provocado por la
mujer. La información proporcio	nada se manejara de manera confidencial. Elija una de las 5 opciones
según su opinión: completa	mente de acuerdo, de acuerdo, no tiene opinión, desacuerdo o
	completamente desacuerdo.
1D. El aborto inducido debería	Completamente de acuerdo1
ser una opción para las	De acuerdo2
adolescentes solteras	No tiene opinión3
	Desacuerdo4
	Completamente desacuerdo5
	Negado98
	No sabe99
2D. El aborto inducido debería	Completamente de acuerdo1
ser una opción para una mujer	De acuerdo2
que ha sido violada.	No tiene opinión3
	Desacuerdo4
	Completamente desacuerdo5
	Negado98
	No sabe99

3D.El aborto inducido debería	Completamente de acuerdo1	
ser una opción cuando la vida de	De acuerdo2	
la mujer está en peligro.	No tiene opinión3	
	Desacuerdo4	
	Completamente desacuerdo5	
	Negado98	
	No sabe99	
4D. El aborto inducido debería	Completamente de acuerdo1	
ser una opción para una mujer	De acuerdo2	
que ya tiene 5 hijos y vive en	No tiene opinión3	
extrema pobreza	Desacuerdo4	
	Completamente desacuerdo5	
	Negado98	
	No sabe99	
5D. El aborto inducido debería	Completamente de acuerdo1	
ser una opción cuando el feto	De acuerdo2	
presenta deformaciones físicas o	No tiene opinión3	
enfermedades	Desacuerdo4	
	Completamente desacuerdo5	
	Negado98	
	No sabe99	

**ENCUESTADOR DIGA**: Hemos terminado en la encuesta. Muchas gracias por su participación. ¿Tiene alguna pregunta para mí?

TIOTAL TELLIVITIAN (D) (.	HORA TERMINADA:
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