

Petit se riches malere [Children are the wealth of the poor]: The Influence of Gender and
Power on Choice and Uptake of Long Acting Contraceptives

by

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Thesis submitted in partial fulfillment of
the requirements for the degree of
Master of Science in the Duke Global Health Institute
in the Graduate School of Duke University

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ABSTRACT

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Abstract

Background: Haiti has the highest maternal mortality rate in the Latin American and Caribbean region. Despite the fact that Haiti has received twice as much family planning assistance as any other country in the western hemisphere, the unmet need for contraception remains particularly high. Our hypothesis is that unsuccessful efforts of family planning programs may be related to a misconstrued understanding of the complex role of gender in relationships and community in Haiti. This manuscript is one of four parts of a study that intends to examine some of these issues with a particular focus on the influence of uptake and adherence to long acting contraceptive (LAC) methods. Methods: We conducted a three-month community-based qualitative assessment through 20 in-depth interviews in Fondwa, Haiti. Participants were divided into 4 groups of five: female users, female non-users, men and key community stakeholders. Results: Based on the qualitative interviews, we found that main barriers included lack of access to family planning education and services and concerns regarding side effects and health risks, especially related to menstrual disruption and fears of infertility. Women have a constant pressure to remain fertile and bear children, due not only to social but also economic needs. As relationships are conceived as means for economic provision, the likelihood of uptake of irreversible methods (vasectomy and tubal ligation) was restricted by loss of fertility. Consequently, the discourse of family

planning, though self-recognized in their favor, assumes women can afford not to bear children. This assumption should be questioned given the complexities of the other social determinants at play, all which affect the reproductive decisions made by Haitians. Conclusions: Overall, our study indicated awareness surrounding contraception in the Haitian Fondwa community. Combining the substantial impact of birth spacing with the elevated yet unmet need for contraceptives in the area, it is necessary to address the intricacies of gender issues in order to implement successful programming. In Haiti not being able to bear a child poses a threat to economic and social survival, possibly explaining a dimension of the low uptake of LACs in the region, even when made available. For this reason, we believe IUDs (Intrauterine Devices) provide a suitable alternative, allowing the couple to comprehend all of the factors involved in decision making, thus decreasing the imbalances of power and knowledge prior to considering an irreversible alternative.

Dedication

To Leonardo and Cecilia, the most inspiring parents I could have asked for. You both showed me what it is to serve with all my heart. You allowed me to grow around encouraging examples of social justice and believed I could give the best of me in honor of the underserved of the world. I am forever grateful to both of you. I love you.

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I am infinitely humbled by your love and hospitality.

1. Introduction

1.1 Maternal Mortality and Family Planning

Decreasing the Maternal Mortality Ratio (MMR) has been at the forefront of the global health agenda (UN, 2000). Maternal deaths are the second leading cause of mortality for women of reproductive age worldwide (WHO, 2013). Despite multiple efforts, maternal deaths remain unacceptably high in the developing world (WHO, 2015b).

According to the World Bank Group region classification, developing countries in Latin America and the Caribbean have a MMR of 69 per 100,000 live births (WHO et al, 2015). Haiti, has the highest MMR in the region with estimates varying from 630 to 350 maternal deaths per 100,000 live births in the last 8 years (WHO et al, 2015). Central to this issue is the lack of access to modern obstetric care in Haiti but in addition, the low rate of contraception use (M. Maternowska, 2006).

There is a vast amount of evidence on how birth spacing and family planning (FP) can reduce MMR and the under five-mortality rate (Ahmed, (2012). ; Chowdhury, 2007; Conde-Agudelo, Rosas-Bermúdez, & Kafury-Goeta, 2006; Stover, 2010). Likewise, birth spacing and FP directly empower women by increasing their productivity and hence impacting their family savings (Cohen S., 2010; Kavanaugh ML and Anderson RM, 2013; Singh, 2009). Furthermore, this increases the prospects for educational achievements and future employment (Kavanaugh ML and Anderson RM, 2013). In

developing countries, the increased use of FP has drastically reduced unintended pregnancies and maternal deaths, as estimated by the Guttmacher Institute (Singh, 2009). The former robust evidence noted above coupled with other seminal studies impacted the Millennium Development Goals recommended by the United Nations in early 2000s, making Reproductive Health (prevalence of contraceptive use and unmet needs for family planning) one of the target parameters of focus for developing countries worldwide (Ahmed et al., 2012; U.N., 2008). A diverse number of FP programs have been established in developing countries by different funding agencies aiming to ensure safer births and better maternal and infant outcomes (FHI, 2007; M. Maternowska, 2006).

1.2 Access to Reproductive Health in Haiti

Recent estimates from the United Nations Population Fund (UNFPA) suggest that Haitian women have one in 80 chance of dying during pregnancy or childbirth, compared to the regional risk of one in 510 (UNFPA, 2015). Contributing to this problem are not only the low access rates to obstetric care, with around 37% of births assisted by professional birth attendants, but is also impacted by the low prevalence of modern contraceptive use¹ (UNFPA, 2015). Nearly 31-35% of married women of reproductive age use modern contraception (Ashford, 2003; UNFPA, 2011, 2015), and

¹ Modern Contraceptives are defining according to the WHO. This definition includes: oral contraceptive pills, progestogen only injectable, contraceptive implants, vaginal rings, contraceptive patches, IUDs, Male and Female condoms, Vasectomy, Tubal Ligation and Lactational Amenorrhea Method among others.(WHO, 2015a)

the unmet need for FP is reported at around 52% (Ashford, 2003; Sedgh, 2007; UNFPA, 2015). For decades, health surveys completed in Haitian communities have revealed there is a strong desire for fewer children (Lowenthal, 1987; M. Maternowska, 2006; Gisèle Maynard-Tucker, 1996; MSPP et al., 2012; Murray, 1976; Schwartz, 2000). Previous unpublished qualitative studies in Léogâne, Haiti conducted by graduate students from the Duke Global Health Institute, and other published studies, suggest that numerous Haitian women claimed to have reached their desired family size and wish to limit future births (Chakhtoura, 2012; Conde-Agudelo et al., 2006; Peragallo Urrutia Rachel 2012; Yang, 2013). However, use of modern contraceptive methods remains extremely low and over time the desire for mid to long-term birth spacing methods has dramatically increased (Maynard-Tucker, 1994; Peragallo Urrutia Rachel 2012(UNFPA, 2015). In 1986, the unmet need for contraception in Haiti was around 40%, and figures almost 30 years later revolve around 37% showing only a slight decline that might not even be significant given the scarce data resources available (Ashford, 2003; M. Maternowska, 2006; UNFPA, 2015; WHO, 2015b).

Haiti remains the only country in the western hemisphere in the high-risk category for pregnancy and childbirth (M. Maternowska, 2006; WHO et al, 2015). The Haitian government, recognizing its limitations, has been partnering since 2008 with different international stakeholders to provide alternatives for families that seek

reproductive healthcare, mobilizing new centers for education, birth centers and reproductive clinics (M. Maternowska, 2006; UNFPA, 2011).

1.3 The Haitian Family Planning Paradox, Gender and Power

For decades, gender and power in Haiti has been steadily documented by a variety of ethnographers, anthropologists and other researchers (J. Allman & Allman, 1987; James Allman & May, 1979; Boulos, Boulos, & Nichols, 1991; Lowenthal, 1987; M. Maternowska, 2006; Maynard-Tucker, 1994; Schwartz, 2000) Approximately, 70 years ago a renowned anthropologist reported that, "Haitian peasants wish to have children, and to have the largest number possible" (George Simpson 1942:670). In the late eighties, Lowenthal described gender in Haiti as a "field of competition" in which gender complexities include female sexuality as a commodity to exploit for women's advantage (Lowenthal, 1987). These sexual-material values were also recently described by Richman and reported to cross over social classes and different type of relationships (G. Maynard-Tucker, 1996; Richman, 2008). Richman coined the term "gendered capital" to describe this phenomenon (Richman, 2008). From reading these reports, the aforementioned values would appear to have ultimately permeated into different spheres of the community life creating widespread gender division of labor, rights and duties to the household economy (M. Maternowska, 2006; Richman, 2008; Schwartz, 2000).

Much of the data used to support the patriarchal model is manifested in the United Nation's Gender Development Index (GDI), which positions Haiti as the "worst" country in the western hemisphere based on ranking (UNDP, 2015). One review of this data would suggest Haiti is one of the most repressive countries in the world, and would certainly be labeled as the most repressive country in its geographical region (UNDP, 2015). Contrasting opinions suggest, however, that these reports are misleading due to a failure of the GDI to adequately delve into the complex variables that shape cultural spheres and norms (M. Maternowska, 2006; T. Schwartz, 2009). In reality, negotiations that Haitian couples face result in complex interactions that often give advantages to women.

Furthermore, many studies indicate that Haitian couples actually desire to have smaller families, which reveals another interesting paradox as Haiti has received twice as much FP assistance as any other country in the western hemisphere with no apparent decrease in the overall fertility rates (Ashford, 2003; M. Maternowska, 2006; G. Maynard-Tucker, 1996; T. Schwartz, 2009; UNFPA, 2011, 2015). This paradox led to an unraveling of the argument that it is not merely, "financial constraints" that reduce the uptake of modern contraceptives.

Our hypothesis is that unsuccessful efforts of family planning programs in Haiti may be related to a misconstrued understanding of the complex role of gender in relationships and community in Haiti. This manuscript is the first of a four-part study

that sets to examine some of these issues around contraceptive use and likelihood of uptake in rural Haiti. Further implications regarding family size, birth spacing, barrier methods and traditional methods are described in the remaining documents. The main focus of this manuscript is to examine gender and power topics with a particular focus on the influence in uptake and adherence to LAC methods.

1.4 Project Description

This project was conceived as a three-month community-based qualitative assessment designed to explore contraceptive knowledge and practices and likelihood of uptake in woman and men in Fondwa, rural Haiti. The project was conceived around the “high funding-low uptake paradox” experienced by Haitian couples in the last two decades. Through this qualitative exploration, we intended to understand reasons for this paradox in order to develop and tailor programmatic guidelines for the family planning curriculum of the first birthing center in the village. By providing a culturally competent and locally tailored program we hope to increase contraceptive usage and birth spacing, therefore, having a positive impact on overall maternal and child outcomes. In the following manuscript we will detail one of the four pieces of the complete research, with a particular focus on gender and power in relationships and its impact on uptake and method choice of long acting contraceptive (LAC) methods.

The specific aims and hypothesis are as follows:

Aim 1: To qualitatively explore sexual, reproductive and contraceptive practices and beliefs and women and men in Fondwa, Haiti

Aim 2: To qualitatively examine gender and power as factors involved in the uptake of long acting contraceptive methods in women and men in Fondwa, Haiti.

Hypothesis: Gender and power in relationships can influence the likelihood of uptake of LAC methods and the choice of reversible or irreversible methods.

Aim 3: To qualitatively explore self-perceived factors affecting adherence to long acting contraceptive methods in Fondwa, Haiti.

Aim 4: To develop general programmatic guidelines for long acting contraceptive methods for the new Carmele Voltaire Birthing Center, according to the qualitative analysis.

1.5 Research Collaborators

The project involved the partnership of Duke Global Health Institute in Durham, North Carolina, United States of America (USA), with Duke University in Kunshan, China and Family Health Ministries (FHM) in Durham, North Carolina, USA.

The former collaboration allowed the development of the qualitative assessments around FHM facilities in Fondwa, Haiti. FHM is a US faith-based non-governmental organization (NGO) that has conducted community-based outreach and evidence-based

interventions around family health in different regions of Haiti (FHM, 2016). For the last twenty-four years their research has contributed to a multitude of long-term interventions that support partnerships among local community stakeholders to achieve better health outcomes (FHM, 2016). With three main facilities in Haiti (one in Port au Prince, one under construction in Fondwa and one soon to be erected in Léogâne City) FHM has established various projects around maternal and child health (FHM, 2016). Their aim is to develop “independent and self-sustaining Haitian-run programs and infrastructure (FHM, 2016). Their latest and most ambitious project is the new birthing center for the rural community of Fondwa that hopes to be operational by March 2016 (FHM, 2016). The facility will serve as the first health post in the area serving a large number of women without former access to services. The Haitian-run facility will provide culturally competent maternal and child services aspiring to increase uptake of services and impact a variety of health outcomes.

2. Methods

In order to achieve the previous stated aims this research will use a qualitative approach to describe and deepen the understanding of gender and power dynamics influencing LAC use, LAC beliefs and barriers for adherence in Fondwa, Haiti.

2.1 Setting

The research undertaken in the central southern part of Haiti in a rural community called Fondwa. The village is situated in the Léogâne Commune 45 minutes from Léogâne City, a suburban city two hours southwest from the country's capital, Port au Prince. The average population has been estimated to be at around 12,000 with no clear demographic surveys assessing the exact number of residents. Access to housing settlements is through the main road, which connects Léogâne City with Jacmel, a southwest local tourist destination on the Caribbean coast. The main road circles the mountain where residents have built dirt paths and poorly patched cemented roads. Communities are named and divided by dirt roads, which people use for commuting by foot, motorcycle or 4 legged animal to their residences along the hillside. Most commercial buildings are built along the main road, where food stalls, the single village restaurant, a small higher educational facility and a primary school are located.

Life in the village revolves largely around agriculture. The majority of the residents do not receive a fixed wage, rather they survive on the volatile cycles of farming. Most families have been involved in agricultural business for generations. Men

tend to dominate the physical chores, while women occupy themselves in the market economy and with the tasks of motherhood. As prospects for production have been falling, most rural-based farming families have members who emigrated to Port au Prince chache lavi [in search of life] (M. Maternowska, 2006). As peasants they grow diverse crops (e.g. plantains, mangoes, bell peppers), which are harvested and packed by entire families to be shipped in weekly pick-up trucks on the main road directly to the capital. The remaining harvest is at the weekly market. Most peasants and their families travel from dawn by donkey or on foot, carrying goods from neighboring communities. At the market families engage in commercial exchanges to gather weekly staples. Food items are limited mostly to potatoes, beans, carrots, cabbage tomatoes, plantains, mangoes and peppers. Imported rice, corn meal and spaghetti are sold at the market and are a key part of the Haitian diet.

Residential buildings are constructed of bricks, wood and cement pieces covered by tin roofs. Generally, these constructions are placed at the corner of agricultural spaces where families plant and harvest. Multiple families or in-laws share land where farming or livestock is nurtured. The majority of the residences do not have access to water or electricity. This lack of most basic amenities and infrastructure (e.g. latrines, potable water) adds to the hardships of the area. Electric power is restricted to buildings and houses around bigger facilities that own generators. Various pumps distributed throughout the community across the hillside supply the villages with water. Certain

individual households may also have rainwater recollection systems especially advantageous during the rainy summers. Generally, households are comprised of nuclear families with other relatives across multiple generations sharing meals, division of labor and raising the children.

Education is regarded as a sporadic morning activity given multiple staffing issues. Facilities are precarious and sparse placed in specific sections of the hillside providing classes occasionally for about 3-4 hours daily. The majority of children have access to educational services up to a comparable 8th grade level instruction. Given the precarious economic situation of the families, most children do not complete their education. For those adolescents who do reach upper grade levels, most are over 18 years of age, and have had the resources to be able to pay for the graduation exams to continue advancing grades. The the age ranges in each grade vary considerably since most of the students have failed the exams multiple times. Instruction is carried out in French and Haitian Creole, although, most residents do not speak French fluently. In 2010, the country faced a major earthquake that destroyed most educational facilities in the area. No official efforts to restore them have been made; hence they continue to operate in precarious conditions. The Association of Peasants of Fondwa (APF) has an ongoing educational project to support higher education (APF, 2015). APF established the University of Fondwa (UNIF) in 2004 after four years of work creating a US-based

non-profit educational institution to support the community's agricultural practices (APF, 2015).

No governmental buildings or services are offered in the area (e.g. access to a bank or a police department). The residents have access to microfinance loans and saving programs through FONKOZE, a local partnership with a US-run microfinance NGO (APF, 2015).

Healthcare facilities are scarce and were greatly affected by the 2010 earthquake. Private non-profits and sporadic foreign medical teams provide most health services. Heart to Heart International is the only NGO that has funded a formal primary care clinic in a cargo container by the hillside. The facility is run by a local nurse, which receives patients daily and consults a physician biweekly. Health services include basic consultations and wound care. Vaccines, contraceptives or any form of medication are not provided. All medications can be purchased in the local market without prescriptions. A renowned community member is known as the pharmacy, carrying medication from Léogâne, in a basket on top of his head. When urgent care is needed, residents have to arrange transportation in motorcycles or local food trucks to the nearest hospital in Léogâne city or Jacmel. If roads allow departure, families must travel around 45-60 minutes to the nearest health post hoping the facility is open and operating with basic commodities. When in doubt of the need of advanced healthcare services,

residents must decide between Léogâne City or make their way directly to the capital, Port au Prince a two hours commute.

Most research studies focusing on the region are limited to health topics only within the urban and suburban cities in the province: Léogâne and Jacmel.

2.2 Local Research Team Development

In order to build local capacity and ensure compliance with Responsible Conduct of Research, the researchers developed an investigation competency curriculum for training the local research team. The aim of the curriculum was to guarantee high quality data collection, translations, confidentiality and professionalism among the research team.

Three community members were recruited as Research Assistants (RAs) after a week of community outreach with key stakeholders. Recommendations from FHM and other local community partners were considered for recruitment. The selected RAs were Fondwa natives and current residents. All graduated from secondary education and were recognized in the community given their prior experience working as English translators for NGOs working in the area. Two of the selected RAs were finishing thesis requirements for degree completion at UNIF in Project Management. The trainees completed the 40-hour weeklong training. The instruction was centered on interviewing and data collection techniques, ethical conduct of research, specific research protocols, family planning, birth spacing and contraceptives, and simultaneous interpretation and

translation techniques. After training completion all three RAs were hired following oral evaluations. The highest performing trainee was selected for further training in the specific interview guides, research instruments and project management. Instruments were tailored and pretested within the local research team. All RAs were compensated with a daily salary estimated by prior compensations and negotiations before contract signing. No difficulties were experienced with RAs throughout the development of the research. Collectively each party met their responsibilities and established a strong research team disposition. Prior to data collection RAs signed a confidentiality agreement to ensure the privacy protection of participants.

Both primary investigators had prior training on Ethical Conduct of Research, Medicine and Research Design completed at Duke University and other international institutions.

2.3 Participants

APF has developed multiple efforts to empower female business development. Since 2001, they have fostered two large women's groups with approximately 100 members from 14 to around 65 years old. As a group member, women have monthly meetings where they receive training in food processing (i.e. jam making, fruit dehydration and nut butter production), safe water management and prevention of sexually transmitted diseases or gender violence among other topics. Meetings were carried after hours in a local school or wooden shack located on the mountain and

managed by APF. Women had to travel by motorcycles for 20 minutes down the dirt roads or walk for approximately 1 or 2 hours to the facilities. Given the hardships attendance varied and was subject to weather conditions and unexpected events. Members were recognized after attending three consecutive meetings.

Female group leaders were highly influential in the community, recognized by peers and older women. They completed secondary school education and were employed as teachers or full time community workers for APF. They received training in Port au Prince monthly by different NGOs that partnered with APF. Most training aimed to increase food transformation revenue to support loan reimbursement at the local APF partner, the NGO Fonkoze.

The family planning services done by Kore Timoun and Profamil, two US-based NGOs that have been developing certified training curriculums for community health workers in family planning is particularly noteworthy. In the last 20 years multiple efforts have been established and approximately 15 community health workers (“monitrices”) from different areas of the country have been providing counseling throughout rural communities in Haiti, including Fondwa. Given the broad geography to cover and the road challenges, Fondwa’s assigned monitrice was not well known in the community and just one included participant recognized her role in the area.

A list of possible interviewees was developed through informal meetings with the female group leaders. Each leader was interviewed separately and asked to suggest

possible group members for the interview. The eligible members according to pre-established inclusion criteria had to be categorized in one of the following groups: Female Users, Female Non Users or Stakeholders in the Community. For a week, multiple informal interviews about health related issues were carried out through the community to develop a sense of participation and partnership with the primary investigators. Through the interviews researchers evaluated community involvement, awareness of the new birthing center and possibility of partnerships for further participant recruitment. After a week of multiple meetings and participatory research, a final list of interviewees was developed aiming to cover key community pieces that were shown to be relevant in prior research in the area and following our literature review. The groups of interviewees were as follows: 5 female contraception users, 5 female contraception non-users, 5 men and 5 key stakeholders in the community.

Prior recruitment, possible interviewees were assessed for eligibility by phone.

Inclusion and Exclusion criteria are detailed below.

Inclusion Criteria

- Men or woman 18 years old or older
- Resident of Fondwa, Haiti
- Eligible for contraception, former or current user of contraceptive methods

Exclusion Criteria

- Resident of other Haitian communities

Through referrals from our local research and phone interviews the research team visited or called possible interviewees. All candidates received a detailed project explanation. If interested a follow up meeting date was settled to carry out the in-depth interview.

2.4 Ethical Approval

Prior to data collection and field outreach the research proposal was presented to the United States Institutional Review Board at Duke University, and the Haitian Institutional Review Board Misyon Santé Fanmi Ayisyen (MSFA). MSFA is registered with the United States Department of Health and Human Services (IRB 6585 / FWA 13290). A detailed proposal was presented and approved by both parties (Protocol Number A0514). Participants were asked for informed consent prior to each interview. Consent forms were read out loud and explained in Creole by the trained RA. Participants had the opportunity to ask questions to insure understanding and deliberate participation in the study. Only one participant (Voodoo Doctor) showed hesitation in the informed consent process. This participant had apprehensions regarding the need for a signature in the paper form. His views were acknowledged and discussed with the interviewer and the research coordinator. Ultimately, he decided to draw a cross representing his agreement to participate. The process involved the explanation of the purpose of the research, expectations of a research participant, the amount of time likely to require for participation, risks and benefits, confidentiality of

data collected and the name and contact information of the lead investigator in the case of questions or problems. When encountering illiterate participants, verbal consent was audio recorded and written signatures were waived. (For English consent forms see Appendix A.) After every interview, all misconceptions expressed by the participants around contraceptive methods were discussed. Participant's specific questions were answered and a brief educational session on contraceptive methods was administered. A further reproductive counseling session with a trained physician from the research team was offered in case respondents wanted more information around contraception or reproductive health. Half of the women interviewed decided to go through the session arranging a second meeting time were their questions would be answered. Participants were compensated with the equivalent of their transportation expenses.

2.5 Procedures

The research project was developed in Fondwa, Haiti for 10 weeks starting May 2015. Upon arrival, researchers settled in the center of the community living with a respected local bilingual female elder. The aim was to connect with the community in all stages of data collection and living to get culturally specific and contextually rich data to illustrate the different contraceptive experiences. The researchers were located in front of the construction site for the new birthing center erected by FHM.

A total of 21 participants were recruited for interviews. No participants declined to partake in the research. Five contraceptive users, six non-users, five men and five key

stakeholders were interviewed. Key stakeholders were identified throughout the research process. They included: the Community's Voodoo Doctor, one Female community group leader, a respected female elder, the community nurse and a female religious leader. One interview was terminated early given the inability of the respondent to address the questions asked by the interviewer. The following steps were taken to increase representativeness of participants: the study was conducted in multiple areas of the community which represent the range of variation on key socioeconomic characteristics of interest in the larger population and we ensured all the major sectors of the study population were represented in the sample.

All instruments were developed in English. The questionnaire was adapted from a previous Focus Group Discussion Sample developed by FHI 360 in 2004 and previously used in a study regarding community awareness and barriers to long-acting contraception (360., 2004). The adaptation considered the framework of the Extended Health Belief Model (Sheeran, 1996). This model excerpts theories and methods of behavioral science to describe and understand health behaviors (Sheeran, 1996). The health seeking behaviors were viewed as results of an interaction between individual perception, modifying and mediating factors and the likelihood of action (Sheeran, 1996). Each set accounts for different components affecting people's decision-making process that were considered for the questionnaire development (Sheeran, 1996). The main topics addressed in the interviews were related to family sizing, birth spacing and

contraceptive practices and beliefs, method preferences, self-perceived barriers for adherence and likelihood of uptake of LAC methods (see Appendix B for complete interview guide). The interviews were pretested by the head interviewer RA during training. The interviewees were the other two employed RAs, which were not familiar with the interview guide.

A native creole-speaking pre medical student translated instruments to Creole. Later, RAs back translated the instrument to English to ensure accuracy. These copies were contrasted and the Haitian Creole version of the instruments was tailored according to local demands prior pretesting.

2.6 Analysis

A trained RA conducted the twenty interviews while the primary investigator took notes and probed when needed. Interviews were carried out in different private homes at specific set times while there were no other residents present in the household. The average interview lasted 1 hour including informed consent administration and a time of question and answer on contraception use and family planning.

In order to ensure privacy, each interview was identified with a code number and participant names were not disclosed during transcription or analysis of the data. All audio and transcription files were saved in a password protected secure website. The trained RA and the primary investigator did verbatim transcriptions from Haitian Creole audios directly to English. Additionally, the researcher took written observation

notes during interviews. After every interview was finish, both researcher and interviewer had a debriefing meeting to recall important shared content. Notes were made for every cultural consideration the interviewer pointed out, and local idioms and proverbs were analyzed in-depth.

The primary investigator did transcript-based analysis of the audio files with QRS Nvivo®. The researcher analyzed the data using grounded theory approach looking closely for common themes around participant's dissent, consensus, disagreements and controversy on gender, power, family sizing and contraceptive use (Strauss, 1994). Data was abstracted using an initial coding extraction based on the interview guide and subsequently, open coded. Abstractions from all groups were contrasted. Open coding was done cyclically in two stages. First stage aimed to place data in small units that were afterwards converted to categories. Second stage involved reviewing and creating categories to abstract final themes that express the content of the participant's views. Triangulation was done using the multiple data sources (informants). An assessment of emerging themes regarding gender and power in association to long acting contraception is reported in the results section.

3. Results

3.1 Participants Characteristics

Twenty participants were recruited for interviews ranging from 18 to 75 years old. All interviewees were current Fondwa residents. Study participants reflected the geographic, economic, social and religious diversity of the Fondwa society. Most respondents were subsistence farmers or merchants with less than half having completed primary school.

Female participants were divided in two groups: contraceptive users (4) and non-users (4) if they were currently users of modern methods as defined by the WHO (WHO, 2015a). All female participants had sexual partners. Respondents had an average of four children. Half of female participants were either married or cohabitating.

The male group was comprised of four participants. The stakeholder's group consisted of specific women and men with key roles in the community's life. Two stakeholders were also known in the community as health providers and contraceptive sources of information (Fondwa's only nurse and one Voodoo Doctor).

3.2 Family Sizing

There was universal agreement among participants about the pressing need for smaller families. Users and non-users of modern contraceptive methods often cited economic reasons for the need to space and limit births. Men's and women's

reproductive intent was shaped by their perceptions of the number of children they could support financially, making strong emphasis in providing education and adequate nutrition. One female community leader stated, “Especially for us Haitians, we often say *pitit se richès malere* [children are the wealth of the poor]. The children can become wealth to help you tomorrow. That is why the families think that if they only have 2 or 3 children, the children will not be enough to be able to help them financially. Instead of having 2 children that will help them save some money, the family prefers to have 7 or 8 children because the children are the wealth of the poor”.

Two to three children were often cited as the ideal number of births for a couple. One woman justified her assertion saying, “There are no economic resources that can sustain more than two [children]. People here depend on rain, and when there is a drought there is no good harvest. So people have to fight for themselves to survive. (...) We can even say that there are more mouths to feed than food. The population is just increasing continuously”. A male elder illustrated further, “Long time ago, families had a lot of children, from 12 to 13 children but nowadays, it is different. A family should have 2,3, or 4 children, so that you can educate them. Some people cannot send their kids to school because they just have too many kids. They cannot take good care of them”. A mother expanded on the situation the country was facing, explaining, “people just like misery. For example, I would be miserable if I started having more children now. Nowadays, you can see a great number of children in families and that is not

bringing good benefits to them. Every single child you deliver is a step back. A lot of kids prevent you from improving. You cannot go anywhere or work. You need to nurse them, you can't even go and get water for yourself. You cannot even send them to school because now it is different from what things used to be. You cannot have children without sending them to school. Nowadays, it is even better to give them less food and be able to send them to school".

In contrast to the almost invariant responses regarding number of children, participants expressed a variety of opinions about the responsibility for family size decision-making. One man clarified how men should be leaders in this decision-making process, "Men should make the decision because men are the ones who are dangerous. It is men who should take responsibility for the decision to avoid getting a woman pregnant and having a lot of children".

3.3 Sexuality

Participants indicated that the community had a high premarital pregnancy risk given the increasing rates of sexual activity at early ages. Men and women clarified that there has been a widening in the gap between the age of sexual debut and the age of marriage. This results in the increased social and economical vulnerability of single young girls. Sexual debut was often cited to be as early as nine or ten years old culminating in an early pregnancy with the onset of menarche. There was a lack of parenting caused by the hardships of agricultural duties and early sexual onset. One

father explained, "Some young girls and boys are just free in the streets. Their parents do not take care of them". Another mother clarified, "You might think your son is not sexually active but it is when you wash his clothes that you realize he has condoms in his pockets. Maybe when I was young I wasn't using them, but with kids nowadays, you can't think they are not sexually active. You will find condoms in their backpacks".

When inquiring about the reasons influencing early sexual onset, women detailed how young girls turned to relationships as a result of economic hardships. Transactional sex was not openly discussed, but younger female participants described relationships with men in which dating revolved around payment expectations. These payments included, but were not limited to, clothing, food, school fees and uniforms. One 26-year-old single female expressed "This happens because the mothers do not really help them [young girls]. Sometimes other boys start to help the little girls because they are not getting any other help from their parents. Some mothers cannot do anything for their girls so the girls find someone who can help them and then you know what happens". Girls did not discuss payment expectations openly, nonetheless it was understood by both parties that they could discontinue the relationship if needs were not met. A young woman described how poverty has been creating new patterns in sexual relationships and increasing informal unions derived from economic necessity. Participants explained that single women rely on men for economic support entering a "plasaj" sexual relationship with numerous men throughout their lives who become

fathers of their children. Men explained the need of women to be monogamous but male's freedom to "plase" with different female members of the community or acquaintances in the city. A young man detailed, "I have a girlfriend living in Port au Prince but I also have other female friends living in Fondwa in case I need to have fun with".

Female participants in the study who had children had all delivered children from two or more partners. Most women described relationships that persisted for a few years and later dissolved creating the need to find a new partner for support with the new additional child. One woman explained the need for childbirth with a new partner stating, "When you are with someone that is helping you with a child that doesn't belong to him and you still don't have a child with him, he does not feel good. It looks like he is taking care of the child for you".

3.4 Contraception Use

Overall, interviewees expressed positive views towards contraceptives in all participant groups. Most female and male participants demonstrated awareness of a range of contraceptive methods. Most women were able to name several form of modern methods and briefly describe some part of their mechanism of action. A limited number of participants expressed familiarity with some methods without being able to identify the appropriate use. The majority of this later group was male. Only two male participants voiced uncertainty about contraceptive methods making general statements

like “ I only know condoms, I don't know much about women's [methods]”. Men explained they are open to contraceptive use in marriage or informal unions for the purpose of limiting the number of births and preventing transmission of Sexually Transmitted Infections (STIs).

Users and non-users often held mixed views on modern contraceptive methods, acknowledging their benefits and at the same time showing strong fears about harmful side effects. The findings suggested a high level of unmet need for contraception given all women in fertile age expressed the desire for birth spacing and/or limiting births. Current users shared ambitions for smaller families however, many shared experiences related to cycling in and out of contraceptive methods trying to navigate their fertility expectations versus the economic uncertainties. Most of the women interviewed who reported having an unmet need for contraceptives had used modern methods in the past for a variable number of weeks. Their reasons for discontinuation are described below.

The next sections highlight the main themes related to contraceptive knowledge, perception and practices voiced across participants and contraceptive methods.

i. Benefits of Contraception for Individuals and Communities

Given the hardships in the community, study subjects explained that the main benefit of contraception was limiting the number of births. In contrast, only a small number of participants pointed out birth spacing benefits. One woman explained “women should use [contraceptives] because they will help them to have children when

they are truly able to take care of them and when they want to have them. I think its possible for people to use contraceptives to help them with their economical situation. It helps you save money because when you have children you have to take care of them. With contraceptives you are thinking about their [children's] future and welfare". Men and women agreed on benefit regarding smaller family size, explaining the key role of contraceptives, "You should use contraceptives to avoid getting pregnant if you want to have sex. Some people use contraceptives so that they can have more time to make money and have more food. They [people] use contraceptives so that they can manage their lives. If you are using contraceptive methods, you will not have children. You will have children when you want them."

ii. General Barriers for Contraceptive Method Uptake and Adherence

The difference in perception of family planning between users and nonusers was unexpectedly small. Barriers converged across participant groups and similar themes emerged repeatedly.

Overall, across all groups and ages, perceived and experienced contraceptive side effects appeared as the primary impediment for uptake. Concurrently, side effects were cited as the main reason for discontinuation in the user`s and former user`s group. Main barriers included lack of access to family planning education and services, concerns regarding side effects and health risks especially related to menstrual disruption and fears of infertility.

The danger of some presumed side effects due to hormonal methods, the menstrual disruption, and the risk of infertility were often cited as major barriers for uptake and reasons for discontinuation. One woman summarized her concerns expressing, "I have heard some people say that contraceptive methods can cause diseases too. Some women have hemorrhages and say that they are caused by contraceptive methods. I wonder if that is true. Some women even use contraceptives for 10 years, so you hear things". All the concerns raised by participants are detailed in the contraceptive method inquiries below with their influence on method choice.

Menstrual disruption was one of the most frequent concerns raised by women. Participants explained how menstruation is considered a vital sign and marker of women's health status. As one young woman clarified "When all that blood stays inside of you for months, it can give you a problem". The possibility of menstrual cessation or disruption was one of the barriers for uptake women pondered. "I think that contraceptives might not be suitable for me. I can have problems with my period. It might not be good for me" one woman clarified. Risk of menstrual cessation was often not explained by providers to the new users so they experienced this issue as a negative consequence that altered the biological patterns of menstruation. One mother expressed, "Even if the period stays inside of the women, it can cause problems. Because that blood isn't good. God chose to make it this way so that women can get it out every month". Frequently, women who experienced any side effect from contraception use could not

obtain adequate health assistance. The poor management of these eventualities was associated with the misconceptions and myths determined reproductive health decisions involving initiation of contraceptive methods and enrollment or retention in a family planning program.

The second most cited reason for not adopting contraceptive methods was accessibility among participants. The only nurse provider in the village explained, “You know, I do not receive people here to distribute contraceptives. I almost forget about them. I don’t really have information here, so I can’t really talk about it [contraceptives]. People just say you have to go so far to go to get them. It is difficult because they have to go down and head to Léogâne. So people might not have the money for transportation to go. If they [contraceptive methods] were available here, people would use them”.

Further broader barriers mentioned were limited method choices, breastfeeding as a contraindication for contraceptive use, provider biases in method choice counseling, infrequent sexual intercourse, non-cohabitating relationships and constraints on women’s decision-making abilities.

Common beliefs among the study participants included fear of infertility due to contraceptive use. This belief was manifested both in users and non-users and was not limited to a specific modern method. The belief determined participant’s view on eligibility for contraception generally limiting modern methods to multiparous adult women.

iii. Eligibility for Contraceptive Methods

Participants expressed a variety of opinions surrounding eligibility for contraceptives. Overall, women expressed reluctance to allow nulliparous young women to use contraceptives but given the high rate of sexual activity in younger populations, they voiced the need for young couples to use male condoms. Male condoms were projected as a method suitable for younger populations or couples in unstable relationships.

Contraceptives were envisioned as methods needed when in a stable relationship or cohabiting with a partner. When partners were not living under the same roof, women expressed that they should resort to condoms to avoid pregnancy. One older woman explained, "I don't think I should use contraceptives. I don't have a husband. I might need to if I have a friend, but in that case I can use condoms. To use contraceptives you should have a husband because if you are using some contraceptive method you should be having sex regularly".

A frequent apprehension expressed by women was the correlation between early use of contraceptives and harmful side effects later in life. There was universal agreement in the different groups around the need to prevent pregnancy in younger generations without the use of hormonal contraception. One woman voiced, "for me, I see that they [thirteen and fourteen-year-old girls] are too young to use contraceptives".

Frequently women expressed ineligibility for the use of contraception in nulliparous females quoting infertility as one possible outcome due to early initiation. One mother explained her concern for infertility in young girls using contraception from an early age saying, "I think young girls should use another method [not oral contraceptives]. Like when a young girl doesn't have children yet. I have heard that if young girls are using [hormonal] contraceptive methods they can have problems [to conceive] in the future". Multiple participants of different ages throughout the community often reported such beliefs.

The female group leader, who typically gives contraceptive guidance, addressed adolescent contraception clarifying, "Normally, I am not an advocate for them to use contraceptives. They could do it but I would advise them to use condoms and the calendar [method], instead of other [modern] methods like injectable or pills. You can train them and tell them they should use condoms, and when they have their period, calculate which dates are safe to have sex. If we advise them to use other methods, you might lose them. I do not know what bad side effects contraceptive methods can give to them [adolescents] because they are not old enough to use contraceptives, like the pills and injectables. They are only 13 or 15 years old." When questioned about the calendar method she usually suggested, the food processing group leader had multiple misconceptions around reproductive health. Various women in the sample shared these

misconceptions; most of them were not members of the food processing groups illustrating that the misconceptions were community wide.

Lastly, women of different ages broadly mentioned varicose veins as a contraindication to any form of modern method. The oldest female participant interviewed expressed, “Another reason for not using contraceptives could be that some women have varicose veins, so they cannot use contraceptive methods. The varicose veins are some veins that grow up on the back of the leg of the women. Women say that these are caused by some contraceptive methods. Before using the method, the veins are small but after using the methods, the vein grows bigger”.

iv. Gender and Power in Contraception Use

Narratives around sexuality involved women expressing their power by establishing relationships for financial gains. Sexual enjoyment or love was not mentioned in any of the interviews as motives for unions. For women, relationships were a means of family survival. Children were a bargaining token that increased woman’s power in front of men. It was unanimously condoned to use this power to access material support. In contrast, men described a degree of identity fulfillment in having a partner, which indicated they were establishing lineage. Men acknowledged the requirement of an economic capacity to initiate a relationship voicing, “goes pou, gen fi, fo gen lajan [to be able to have a woman, you need to have money]”. Having multiple partners at one time was widely accepted for men, as was having children with several

women. Unions tended to disintegrate either after a child's birth or when men were unable to fulfill their economic duties.

Given the power children gave women in relationships and the contrasting gender roles with which men are portrayed, contraception decision-making was a complicated topic. Women in relationships without cohabitation expressed an increased ability to initiate the use of contraceptives without the knowledge or consent of their partner. Subsequently, married women or women in formal unions, rarely initiated modern methods without seeking husband's consent. As one older woman explained, "A woman should discuss first with her husband, because the husband should make the final decision. But if they are not living together, the husband cannot say anything because he doesn't know anything about the woman's economic situation". Furthermore, younger women acknowledged there were certain freedoms in decision-making given the reality of multiple life partners, "Husbands do not need to know everything. Husbands do not need to know about contraceptive methods. Husbands don't need to know anything. A lot of women are using injectables for 3 months and their husband does not know. Because the money does not come from them, they do not need to know. Women already have children, the husbands don't need to know anything about contraceptive methods they use". Many women noted concerns about the secret use of contraception. They explained that it facilitates mistrust in the union.

These women further correlated perceived mistrust with husbands expounding on this to believe their wives were participating in extramarital affairs.

Sexual intercourse was generally deconstructed into the reproductive and the sexual aspect assigning sexual responsibilities to men and reproductive responsibilities to women. A middle age woman expanded, "They [community] were saying "it is women who can deliver children, so they should get procedures, it is related to them". They [community] said, "it should be women who should go to do it, not men". The female leader of the women's group detailed, "because it is the men who puts the "gem" (sperm) inside the women, peasants, who are not educated, think that they are the ones who give children to women. People, who are highly educated, know it is both men and women. In Haiti, the wealthy people know that their children come from men and women, but the poor people think that it is the men who give children, and they are the leaders. Despite women are the ones who carry the babies; they think men are the ones who gave her the baby".

Women recognized method secrecy as a benefit but disregarded this privacy as the most important aspect for decision-making. In addition, a large minority of mothers expressed that their husbands could overrule a desire for a specific method and women had the obligation to ultimately obey. In contrast, men described themselves as contraceptive advocates stating that they imposed contraceptive use on their wives rather than impeded their use. Frequently, men had misconceptions around

contraceptive methods, as it is not normative for them to request information from health care professionals on what is considered a woman's responsibility. These misconceptions directly influenced the couple's reproductive decisions for method uptake, reducing the methods that a woman could choose to the methods that were familiar to average men in the community.

v. Method and User Failure

One of the most frequently cited concerns for women participants was pregnancy while using contraception. Frequently cited was the fact that multiple renowned women in the village had become pregnant while using a variety of contraceptive methods. When inquiring about the causes for this phenomena with different stakeholders, participants mentioned expiration date issues, suboptimal dosage of injectables and non compliance from female users given access constrains. Method failure was often cited as a reason for pregnancy disregarding the influence of user failure as a possible explanation.

vi. Sources of Contraceptive Knowledge

Many respondents indicated that they obtained the majority of the information that influenced their family planning decisions from sources within the community. The sources of information that were most likely to be acknowledged were friends, relatives, and neighbors. Alternative sources such as health providers, NGOs or radio/TV were also mentioned but these appear to have a much weaker impact on influencing family

planning decisions. Women were more likely to mention health care professionals as sources of information, however; women narrated multiple examples of miscommunication and misunderstanding in their interactions with providers. The one male participant that sought information from a health professional was the single user in the village who decided to go through a vasectomy.

Men and women cited frequently vicarious experiences as the most compelling evidence about a specific contraceptive method. Frequently individuals lacked the knowledge to provide accurate information for an informed contraceptive choice. As a result, much of the information received by community members was erroneous.

3.5 Long Acting Contraceptive Methods

Long-acting methods were not regularly offered at health centers near the village. Participants relied either on vendors at the market for a supply of injectables or on commutes to health centers in Léogâne every 3 months with expectations of supply. Constant comparisons were developed between injectables and pills (two of the most common methods in the village) favoring long acting alternatives even when multiple side effects were described.

a. Injectables

All participant groups demonstrated general knowledge surrounding injectables and indicated that they were the most commonly used form of contraception among regular users. Although these were noted to be the most commonly used form of

contraceptives, availability was limited. Participants noted that availability was limited to informal purchases at the market or long commutes to the nearest medical center in Léogâne. Financial constraints were also mentioned when inquiring about transportation plus the contraceptive and administration supplies.

Out of all the modern methods reviewed in the inquiry, participants reported that the side effects of the injectables were well known and also frequently experienced by users. Interviewees regularly reported menstrual changes as a side effect; metrorrhagia as the most common problem. One former user explained, “I had 3 months of bleeding non-stop. It never stopped. Three months later it finally stopped. Afterwards I didn’t get my period for about 6 months so I stopped using contraceptives”. Another woman narrated her experience saying, “While using the injectables, you can get sick and you start bleeding too much or you are not bleeding at all. It just doesn’t feel normal”.

Weight gain was quickly attributed to the use of injectables, both by participants themselves and as witnessed in neighbors or relatives. Most women described weight gain objectively, yet older women believed it was a positive benefit. One senior woman articulated, “Women don’t have any problems with injectables they just get fat. When you see them, you immediately realize they are using injectables because they are fat. It is good for women, it is like a vitamin”. Younger women feared the weight gain because of the physical constraints that could potentially hinder their daily responsibilities. One

young mother explained, "Some women use injectables and they have shortness of breath, and cannot climb the mountain. They become fat". Agreeing with the prior statement, a woman shared her experience saying, "Sometimes when you become fat, it is not good for you. You cannot walk or climb the mountain, and you are short of breath. When I was using the injectable, even though I did not become fat, it gave me problems with climbing the mountain".

Participants shared multiple apprehensions regarding a lack of trust in administration of injectables itself. Women attributed the high rate of pregnancies while using injectables to expired medication administrations and suboptimal dosage. One woman expressed, "Sometimes the injectable is expired and they give it to the women, and she thinks it is good. When they become pregnant, they know that the injectable was expired. They never show it to us when they give it to us. They just give it. When you go to get them [injectables], they do not tell you the name of the contraceptive. Sometimes, you will like to change the method because you do not know much about it, like the name and you cannot say anything. They [clinic/doctor] just give them to us".

Though the frequency of side effects reported was high, interviewees maintained that injectables were often the most effective method available to prevent unwanted pregnancies. This was linked to the fact women only participate in uptake every three months. The participant attributed this specific benefit for their overall preference for injectables; despite the fact other methods were more readily accessible.

Men and women recognized efficacy rested in timely injections every 3 months and voiced concerns surrounding affordability, supply chains, condition of the roads and transportation, all of which, could compromise compliance. User failures were not described when voicing problems with efficacy, attributing lack of efficacy to method failure. While most participants agreed it was a suitable method for the community allowing fewer users mistakes, they believed the high rate of side effects made continuation and timely adherence difficult.

Eligibility for injectables was limited to women in stable relationships, cohabitating or married with one or more living children. Fear of infertility and other side effects removed injectables from the possible method choices for adolescents. One older woman explained, "I hear people say injectables might cause a bad effect if you are using them without having sex". Most concerns shared by participants were related to side effects, specifically those surrounding women's ability to work and specific dimensions of their marital relationships. Sexual concerns that resulted from side effects and the inability to please a partner sexually were eventual reasons for injectable discontinuation.

Given the limited access to in depth information about injectables self-reported by users, participant's experiences with side effects were shaped by misconceptions and community-wide rumors. These exchanges contributed to the creation of popular fears of infertility and other long-term harms due to injectables.

b. Implants

In the interviews indicated that participants shared general knowledge about implants. Most men and women had vague notions of a contraceptive method that involving a minor surgery and the placing of a small device in the arm. Women and men referred to it as “the five year injectable”. However, the method was not available in known facilities in Léogâne and access remained limited to mission teams and non-governmental organizations doing rural contraceptive delivery outreach.

A female elder included in the sample was the oldest woman in the village to have received an implant while still in her reproductive years. She described the experienced in the interviews and also noted that she served as an advocate for multiple younger women in the community. Her daughter expressed one of the difficulties regarding implants remembering, “my mother has had it [implant] for 15 years. The reason why she has not removed it is that the group of Americans that provided the implant, isn’t here anymore, so no one can take it out. She had it even before my dad died, and until now it is still in her arm”. Multiple women detailed the difficulty and economic hardship that the placement and subsequent removal of the implant would produce, making the method less preferable given their living conditions. Additionally, some women described apprehensions with the invasiveness of the method. Although, the women described concerns regarding potential side effects, they simultaneously

expressed interest in trying this method of contraception, citing the longevity of protection as the main motivator.

Given the similarities in function, participants voiced several key disparities between injectables and implants. Most women compared the 3-month window of injectables to the 5-year coverage an implant could provide. All participants that showed awareness of the method believed implants lasted for 5 years. No allusion to Norplant®, Implanon® or other shorter acting implants were mentioned. When highlighting the benefits of the longevity of protection provided by the implants, the religious female leader of the main school expressed approval of the benefits. She said, “the implant has a duration and expiration time. I think that can be very useful for women. Sometimes if they want to finish with their education and school, and they don’t have a good memory to remember to use the other methods, they can make mistakes and face a bad situation because they forgot to use the contraceptive. (...) These methods can help them plan their life”.

The two most prominent barriers indicated by women involved menstrual irregularities and the fear of side effects. One woman narrated, “I will never use the implant for 5 years. Another woman who used the implant always had vaginal discharge. Also, it is not good to spend 5 years without your period. Sometimes, you can become fat, which is not good so I will never use the implant. I do not have any problem using injectables for 3 months. After 3 months, I will have my period. But to spend 5

years without my period, or 2 or 3 years without my period, I think it would not be good for my body. That can cause you to have cysts or growths in the uterus”.

Effectiveness was also referenced as a variable in discussion, but remained secondary. This variable mainly stemmed from personal stories of other users who either received implants while unknowingly pregnant, or those who became pregnant while using a potentially expired method.

c. IUDs

Long acting reversible methods like IUDs were not widely known by participants. However, after a brief explanation of the method, interest was high among users and non-users. The non hormonal nature of the method coupled with continued regularity of a menstrual cycle while using an IUD, sparked interest among the women. A woman that voiced interest expressed, “I haven’t heard someone in the community that has done it or wants to get it done, but if it is available here I think it will be easier to get it because a lot of women need it”. One mother of six detailed, “I think this method [IUDs] might be very interesting for women and I think they will like it more than the others [modern contraceptives]”.

When inquiring about barriers and likelihood of uptake, two women described the necessity of getting more detailed information about implants. This stems from the widely circulated rumors about foreign objects migrating across the body causing harm.

One young woman voiced, "Even though it is a foreign object inside your body, I think like 80 percent of women might not say anything about the IUD so they might not have negative effects. It will not have the same effect for every woman but if it is a reliable method a lot of women will use it. I think a lot of women will decide to use the IUD". As with other long acting methods, women expressed the strong influence that both individual and community perceptions played in influencing reproductive choices. This suggests that the introduction of a new method would be successful if using a community advocate. This participant expanded, "Women in the community may not want to use it. They could be afraid of it. They need to see a woman in the community do it first. If they see it works well, and it does not give them any problem, then they will accept". One older woman expressed the importance of sharing experiences about the use of new contraceptive methods, voicing, "It is because they do not know anyone who has used it [IUDs] before and their experience with them. A woman will not be very open to use it, but if she sees an example of someone who did, she might".

The freedom of privacy that the IUD offered, described as "secret method" was highly valued by women. Given that there is reversibility, they expressed that the decision could be personal, eliminating the need to involve their partners. One man elaborated on this potential occurrence, saying, "If the wife decides to use the IUD I think that sometimes women can decide to use contraception without telling their husbands. Or if they tell their husbands and they do not accept, they go to the doctor to

get the IUD without them knowing". Overall, married woman explained that secrecy was not a benefit that would directly influence their final method choice but it was still a highly valued variable. One older woman expressed, "I am not going to put the IUD in without my husband knowing. I will tell my husband "I will get an IUD" if he agrees I will get it. I would tell him "this is to protect us, to protect me and you".

3.6 Long Acting Irreversible Contraceptive Methods

At large, participants voiced limited knowledge about irreversible methods for men and women. They acknowledged that there was no access for these methods in the village and neither in nor around the medical center in Léogâne. One male participant identified the organization Kore Timoun as the sole entity granting partial access to irreversible methods and transportation to Léogâne for the procedures. This knowledge stems from the fact that this particular male is the only member of the community to have ever undergone a vasectomy.

During discourse surrounding barriers and likelihood of uptake multiple gender issues surfaced. Many respondents raised concerns about their ability to conceive children after undergoing irreversible procedures. The main apprehension voiced by the participants was the risk of child mortality, and consequently, marriage dissolution. Men and women both believed that the future prospect of a new marriage could be truncated if an irreversible procedure resulted in the inability of a woman to produce more offspring. When referring to the uptake of contraceptives, one man clarified by

saying, "I will advise my wife to use the permanent method. I will never use them. I make my mind to live with my wife forever, but she might think differently. If I break up with my wife, and I decide to be with another woman, the other woman will be happy only if she can be able to have a child with me. If I cannot have children, she will not be happy. Generally, a woman can only be proud of her man if she is able to have a child with him". Men and women both divulged that irreversibility of long acting methods was their main apprehension for uptake. As the female group leader voiced, "A woman who lives with her husband, never knows if they will stay together forever. If something wrong happens and they split or separate, then the woman will need another man. The other man will want to have a child with her. A lot of women will not quickly decide to get tubal ligation because of that".

As relationships are conceived as means for economical provision, the likelihood of uptake of irreversible methods was restricted by loss of fertility in either women or men. In addition, some participants pointed out how irreversible methods can expose infidelity and create marital conflicts. One woman clarified the issue by saying, "If a person was castrated [vasectomized] and the woman does not use contraceptives and she get pregnant. She will have a problem with her man. She will have to give him an explanation about how she got pregnant". Although these issues surfaced, the overall opinion on irreversible methods stayed consistent. The findings of the interviews

indicate that irreversible methods were considered a possible answer to the need for certain couples, namely those with high number of children, to limit future births.

i. Tubal Ligation

In this sample, the majority of participants expressed some knowledge on irreversible contraceptive methods for women. Most interviewees explained having heard of a method that “tied women’s womb”. In general, women showed greater awareness of the procedure and a broader knowledge of its implications. This increased access to knowledge was directly attributed to women participants having met or heard about women who received the surgical intervention. However, according to the participants no known facility in the area or near the city offered the procedure. A large minority of women believed that the surgery could possibly be requested in some clinical facilities in Léogâne or Port au Prince but none were able to mention a specific clinic.

The top three factors influencing the desire to receive sterilization include: a high number of living children, achievement of desired family size or economic hardships. In general, women agreed that sterilization should be acceptable in couples that averaged 4-6 children. This granted the women more efficacy in decision-making surrounding their fertility, as most women with 4-6 children were nearing the end of the normative age to bear children. Age was mentioned as a factor to consider for tubal ligation

eligibility, showing that participants believed younger women would not qualify for sterilization even with high parity. One woman specifically expressed concern for side effects if the procedure was done at a young age, saying, "Some women go to hospitals then they ask the doctor to turn the uterus. But if you are very young, then you let the doctor do this and that can give you a problem in the future. You can become sick from time to time, sometimes you can have pain in the abdomen". Religion was not mentioned as a forefending or enabling factor.

Additional factors reported to influence decision-making that were mentioned to a lesser extent were medical reasons or contraindications for hormonal contraceptives and prior contraceptive method failure.

Women's efficacy regarding irreversible contraceptives was limited by the normative attitude that they should respect their husband's ultimate decisions. Women didn't express the need to consult with friends, neighbors or relatives for approval of the procedure, given that sterilization was deemed primarily a confidential matter for the couple. The decision to choose tubal ligation was presented by women as a joint decision with their partners ultimately conditioned by the male counterpart. As result, women labeled more extensive discussions around these topics as "fruitless". Many women, however, cited themselves as the most important influence in the decision-making process subsequently expressing their partner was the second most important influence.

Some participants expressed the alternative for an autonomous decision, still maintaining the need for complete secrecy.

The only context in which neighbors, friends, and other families were referenced as influences pertained to anecdotal experiences focused on the potential side effects on the procedure. One woman highlighted this trend by explaining, "Women who have already had it done, suffered from the surgery. So now other women don't want to go through the same thing. They heard their friend after the surgery say "I have a headache all the time" so people don't want to experience the same, so they might not accept to go through it."

A substantial number of women questioned the overall effectiveness of tubal ligation. This stemmed from a number of women who became pregnant even after receiving this particular procedure. As one mother of five explained, "I think many people don't like it [tubal ligation] because some women that used it died. Some women that had it got pregnant too. Like Madam P. Do you know her? She just had her last child. She got a tubal ligation and after a few months she got pregnant".

Some women expressed concerns surrounding potential ramifications after undergoing the procedure. Their main apprehensions with sterilization were manifested around the possibility of being abandoned by their husbands as well as, other marital complications related to economic hardships. One woman expounded on this in expressing the fear of her husband having children with other women if she undergo the

sterilization procedure. Conversely, the idea of “irrevocability” implied that in tubal ligation was given a positive connotation, rooted in the notion that they would not need to “depend” on contraceptives for life.

Positive expectations of this procedure were shared broadly and commonly linked to the improvement of a family’s quality of life, children’s education attainment and economic prosperity.

Additionally, women’s misconceptions about a vasectomy procedure played a role in the consideration of different irreversible methods. Women commonly held misconceptions that vasectomies resulted in sexual impotence as well as physical impotence. These misconceptions, coupled with the emphasis placed on the role of childbearing by the male partners, resulted in the tendency of women to view tubal ligation as more plausible alternative to a vasectomy. Women also cited the possibility of undergoing a postpartum procedure as an individual reason for particular preference.

ii. Vasectomy

Participants demonstrated vague knowledge surrounding long active irreversible contraceptive methods for men. Most participants believed there was a procedure available for men, despite the fact they could not specifically name a particular procedure. Vasectomy was widely linked to widespread misconceptions and was not available in the area. Further, participants expressed uncertainty as to whether or not this method was even available in Haiti. A large number of participants disclosed

that a member of the community had undergone this particular procedure. A variety of stories were shared about his experience and those were taken as the norm for other men's opinions on vasectomy.

One middle age woman expressed that this method would result in a diversity of opinions in the community and stated, "People would laugh and say to the man that gets it [vasectomy] "you got castrated" (laughter). People will tease him anyway. They will say "you got castrated". Let me think who got castrated before. I know someone, who was castrated, and they said to him "oh you were castrated". They talk about D. and they tease them "D. got castrated". People gave him a nickname; they call him "castrated". Vasectomy was associated to castration and multiple male participants explained they were unsure about side effects as sexual and physical impotence that could impact performance. As the main reported barrier, vasectomy was associated with weakness and incapability to satisfy women sexually which could lead to multiple marital struggles. It was believed that if her partner did not sexually satisfy her, a woman was more likely to engage in extramarital sexual relations. Lastly, men mentioned social reputation as another barrier for uptake. One woman explained men's concerns with reputation after the vasectomy saying, "after D. went to get the surgery, he was in a little pain. He couldn't dressed with his pants so he used skirts. After the pain he was okay again but men talked so much about that [wearing skirts]".

In contrast, women highlighted the positive implications of vasectomy. They indicated that this method would prevent men from having multiple children in multiple settings. Women further attributed this trend with the men's inability to provide for all of their biological children. The vasectomy, they reported, would decrease this trend. One woman phrased, "I think it is a good method. Men should get it, especially if some men want to have one than one woman, you can hear they have children everywhere and they get lots of people pregnant. Sometimes the men don't take care of their children in other places".

Some male participants in the group commented that reproductive and childbearing falls into the sphere of female responsibility, thus perpetuating the continuous pattern of gender power disparity. One father of five commented about the only man that had gotten a vasectomy, "When D. had it [vasectomy] many people in the area said, "this is not good for men to do, this is something women should do"". When inquired on likelihood of uptake one man explained, "I think men will not be interested in vasectomy because they say they are men so they shouldn't let doctors cut their tubes. Women should be the ones using contraceptives". One young man explained the contrast regarding efficacy in decision making when concerning irreversible procedures. Men, he explained, have the freedom to undergo irreversible procedures without consulting their partners. However, wives or partners appeared to play a prominent

role in knowledge sharing on permanent methods given they were keener to seek reproductive health advice.

Conversely, it is socially normative for women to obtain permission before undergoing a similar procedure. Further perpetuating this disparity, women shared that while they possessed a great deal of interest in their partners undergoing vasectomies, they disregarded this alternative. They attributed this disparity to their perceptions of their childbearing role.

The only vasectomy recipient in the village explained that his decision stemmed from the need to limit births in his family. This was rooted in the economic hardships the couple was facing with a big family as well as the contraceptive side effects his wife had experienced. He highlighted that a health care worker from Kore Timoun (an NGO in Léogâne) had influenced the decision to choose sterilization. He clarified that encouragement for and affirmation of a vasectomy should come from women as well. He illustrated this by saying, "Women are the ones who encourage vasectomy because they really care about the number of kids they have in their family". He expanded on the advocacy with other men about vasectomy and how he is a new advocate that hopes to get more men interested around the community. He explained, "When we are working I share my experience with them [men]. But if we had a place to get it [vasectomy] right here, I would definitely encourage them more because the place would be near them".

4. Discussion

4.1 Knowledge and Barriers in Contraceptive Uptake

Overall, our study indicated awareness surrounding contraception in the Fondwa community. Combining the substantial impact of birth spacing with the elevated yet unmet need for contraceptives in the area, there is a need to address the intricacies of these issues in order to implement successful programming.

Contraceptive knowledge varies among different niches of the population, but is most prevalent in women, as other prior publications have documented (EngenderHealth, 2002; Kraft, Wilkins, Morales, Widyono, & Middlestadt, 2014; M. Maternowska, 2006; G. Maynard-Tucker, 1996; T. Schwartz, 2009). This finding possibly stems from the deeply rooted gendered conceptualization of reproductive health, which assign women the main childbearing responsibilities to women (M. C. Maternowska, 2006; T. Schwartz, 2009). There is limited access to LAC and given the horizontality of the peer-to-peer flow of reproductive knowledge, less access to the methods conditioned individuals' awareness. Knowledge is a key factor in considering contraceptive choice that should be developed in order to increase uptake in the community (EngenderHealth, 2002; Gebremariam & Addissie, 2014). The lack of knowledge is most pervasive in irreversible methods, possibly explained by the limited access community members have to these methods as a whole.

Key points for education center on the cessation of menstruation as a non-harmful side effect, and the deconstruction of the notion that there is a direct causal relationship between contraception uptake and infertility. Additionally, eligibility to LAC methods, given community misconceptions, has to be addressed to increase awareness of the real feasibility of uptake. Fears stemming from personal experiences as well as peer's experiences shaped misunderstanding of most procedures, subsequently generating barriers for uptake and mistrust towards providers.

We believe many of the efforts to implement effective family planning programs have failed given multiple gaps: initial access gaps, continuity for adherence gaps and the lack of assistance in case of side effects. These breaches, compounded by the gender and power dimensions, have eliminated the possibility for men and women to seek services in family planning when faced with reproductive challenges. The aforementioned contributors to health risk behaviors in Haiti are complex and likely associated with other social determinants of poverty, making the development and expansion of successful interventions particularly challenging.

4.2 Sexuality and Contraceptive Uptake

This study identified and confirmed several gender norms and factors that interact with the use of modern contraceptives in Haiti previously reported in other publications (James Allman, 1982; J. Allman & Allman, 1987; James Allman & May, 1979; Lowenthal, 1987; M. C. Maternowska, 2006; Maynard-Tucker, 1994; G. Maynard-Tucker,

1996; Murray, 1976; T. Schwartz, 2009). In our study participants recognized the benefits of family planning, yet continued to be influenced by multiple forces outside the reproductive sphere, and consequently chose to have larger families rather than limit familial size. For decades, authors have reported similar findings, showing that the gender roles system in Haiti is changing rapidly, prompted by political, social and economic pressures (James Allman, 1982; J. Allman & Allman, 1987; James Allman & May, 1979; Lowenthal, 1987; M. C. Maternowska, 2006; Maynard-Tucker, 1994; G. Maynard-Tucker, 1996; Murray, 1976; T. Schwartz, 2009). Our findings concur with previous reports around interpersonal relationships in the Haitian context (James Allman, 1982; J. Allman & Allman, 1987; James Allman & May, 1979; Lowenthal, 1987; M. C. Maternowska, 2006; Maynard-Tucker, 1994; G. Maynard-Tucker, 1996; Murray, 1976; T. Schwartz, 2009). Schwartz (2000) and Maternowska (2006) reported a set difference between polygamy and extramarital affairs, indicating that effort to produce offspring are made in all unions. These studies also highlighted the trend that men continuously keep the economic provider role and women are expected to remain sexually faithful to the current man in their lives. Children remain one of the only forms of social welfare, often one of the few properties peasants could claim as their own (M. Maternowska, 2006; G. Maynard-Tucker, 1996).

This pronatalism has been described decades ago, and has been explained by multiple authors differently: as a mechanism for old age security, as a cultural shifts

resulting from slavery, precarious health care system, poor interactions with health providers and even as a source for child labor given the hardships in the countryside (Lowenthal, 1987; M. Maternowska, 2006; Gisèle Maynard-Tucker, 1996; Murray, 1976) Our findings confirm that while pronatalism is still present in the Haitian society, in reality, it presents a true conflict given the opposite desires Haitians have for smaller families. In our research, women and men, described their ideal family size includes an average of 2 to 3 children, confirming the EMMUS-V estimated ideal family size of 2.8 children (MSPP et al., 2012).

Women have a constant pressure to remain fertile and bear children, due not only to social but also economic needs (M. Maternowska, 2006; G. Maynard-Tucker, 1996). It is vital to the stability of a woman's future to secure her relationships as well as stable economic provision for her children. Consequently, the discourse of family planning, though self recognized in their favor by providing empowerment and smaller families, assumes women can afford not bearing children. This assumption should be questioned given the complexities of the other social determinants at play, all which affect the reproductive decisions made by Haitians. At the same time, health delivery programs for contraception have been developed assuming individuals have already decided to birth space or limit their births (M. C. Maternowska, 2006; T. Schwartz, 2009). According to our understanding from the research, and in agreement with prior

literature, individuals are hesitant and might not even uptake methods or uptake them just temporarily (Gisèle Maynard-Tucker, 1996; T. Schwartz, 2009).

The desire for big families has been a consistent trend throughout the years and has not changed since the early nineteen forties (Schwartz, 2000). Our findings illustrate the struggle between unanimous desires for smaller families and the desire to embrace LAC, ultimately clashing with the pressures couples face in sustaining the established gender roles in relationships in a context of financial hardships. According to the literature and in concordance with our findings, the two most commonly noted predictors of sterilization regret are young age at sterilization and changes in marital status (EngenderHealth, 2002). Given the marital difficulties Haitians face in interpersonal relationships, and assuming early pregnancies might lead to women becoming birth limiters at a young age, sterilization should be carefully contemplated as an alternative. It should be noted, however, that this alternative may lead to vastly complicated outcomes, specially stemming from the possibility of regret from those who do not fully understand the implications of this procedure (EngenderHealth, 2002). We believe sterilization should be explored as a possibility for women, considering the gendered dimensions of relationships without over simplifying this decision. Women, who have used other reversible methods for years without manifesting any desire for further unions even during economic uncertainties that might push them to bear children, could be considered as suitable candidates for the procedure. This aligns with

the data indicating that regardless of geographical context, women uptake sterilization because of two main reasons: economic reasons and achieved family size (EngenderHealth, 2002). In addition, literature has shown that women choose sterilization after prior experiences with contraceptives, frequently IUDs given their high efficacy (EngenderHealth, 2002). For this reason, we believe IUDs provide a suitable alternative, allowing the couple to comprehend all of the factors interacting in decision making, thus decreasing the imbalances of power and knowledge prior to considering an irreversible alternative. In concordance, women in the sample only expressed intentions for sterilization intent at older ages. This coincides with findings in developing countries that highlighted the prevalence of female sterilization and age by which women obtain the procedure are inversely related (EngenderHealth, 2002). This continues to reveal the pattern that in developing countries with a low prevalence of sterilization, women often do not opt for sterilization until reaching an older age (EngenderHealth, 2002).

The best window for tubal ligation uptake indicated by participants was postpartum, findings that do not coincide with the preference of interval sterilizations that other similar low-income countries located in North Africa, sub-Saharan Africa and south Asia indicate (EngenderHealth, 2002). Nevertheless, in general, countries in Latin America and the Caribbean show preference for postpartum interventions, and Haiti aligns with those regional trends (EngenderHealth, 2002). The aforementioned realities

should be taken into account when helping women navigate the decision making process for sterilization.

Even though some men recognized family planning allowed limiting the number of births, they generally tend towards indirectly abdicating this responsibility to women, yet still claim ownership and authority over the final decision. The sampled women lack their partner's support for reproductive decisions, but believed in the necessity to consult them and incorporate their preferences in the negotiations. Ultimately, consulting and obeying were framed as a necessary act of negotiating power. Yet in the end, after delivery and in future pronouncements, women depended on their own manifestation of an ultimate freedom in choice above men's dominion. Eventually, although seldom acknowledged even in the extreme hardships Haitian face, women hold a slight advantage over their male equals (M. Maternowska, 2006).

Women still have an integral role in the home sphere, where children are their advocates and they silently dominate trading practices that back their economic power (T. Schwartz, 2009). Women generally dominate markets where their husband's goods are traded or sold and they recognized in their female circles that "se oso, se oso nou ye" [we are the cane/pillar, we are the true cane/pillar], showing the mainstay reality of their role. Supporting these findings is the EMMUS-V survey data, prevailing as most reliable data in reproductive health, gender and demographic for the country (MSPP et al., 2012). This data exemplified how female's indicators were far from skewed and tended

to fall just slightly below those of their male counterparts (MSPP et al., 2012). An example illustrating the pattern of female empowerment is the statistic that 73% of the married women surveyed participate in decisions about their own health and 78% stated that they are the major or sole power for decision-making regarding family purchases (MSPP et al., 2012). Overall, the survey has confirmed that considering women subservient and helpless in a patriarchal model is incorrect (MSPP et al., 2012).

This reality is evident in the complex decision making process described for uptake of LAC. Through the women's discourse we learn that not being able to bear a child poses a threat to economic and social survival, possibly explaining a dimension of the low uptake of LAC in the region, even when made available. Furthermore, the number of women choosing sterilization each year seem to be higher in Latin America and the Caribbean, than in North Africa and the Middle East (EngenderHealth, 2002). This regional trend does not appear to align with Haitian women's struggles in family planning, given the gender dimensions of the conflict (MSPP et al., 2012). Consequently, LAC are not directly supporting the future prospects of Haitians' life expectancies.

As a result of the fertility paradigm, younger women fear contraceptive side effects that could potentially compromise their fertility. Misconceptions about infertility or the delay in return to fertility knowingly reported by use of injectables, should be pondered heavily during reproductive counseling and when developing programmatic guidelines (EngenderHealth, 2002). For women, preserving fertility becomes as

important as preventing unwanted pregnancies, which ultimately results in many participants preferring barrier methods or traditional methods that supposedly do not menace their fertility.

Vasectomy was constantly placed at the center of the gendered decision-making process. This trend revealed that the initial step couples must make in the decision making process is agreeing which partner will undergo the sterilization process. Despite the little focus family planning programs have given to men and the unstable nature of unions manifested by the participants, a key assumption underlying programs implemented in Haiti (and other low income countries) focuses only on women in childbearing age (M. Maternowska, 2006; G. Maynard-Tucker, 1996). Assumptions like this one have narrowed the influx of contraceptive information mostly to female circles, neglecting gender and power dynamics, undermining the complex context of women's lives and the possibility of male sterilization becoming a viable alternative for those couples that decide to undergo a sterilization process (T. Schwartz, 2009). Sterilization negotiations appeared to be more rooted in and positioned on individual benefits and fears of future prospects than the couples united view of the future. Ultimately, when women considered a relationship "safe" tubal ligation was presented as a more convenient than a vasectomy, because it could be done postpartum. As result, the evaluation for a vasectomy and tubal ligation would have to entail the assessment of

both men and women as recipients of the effects of this procedure given the gender dimensions that implicate.

When considering long acting contraceptives in the realm of gender and power, reversible methods were considered more plausible alternatives given their return to fertility. Our findings suggest that these methods would be an appropriate alternative for women given their gendered conceptions and the complexities in relationship negotiations. Injectables were preferred, often given their irreversible nature and the avoidance of the fear of finding a provider to remove implants or IUDs. Although preferred, the reputation incurred by injectables for inducing side effects stemming from their hormonal nature, still trends towards a decrease in successful uptake. Similarly, implants were disregarded given the possible menstrual disruption for which they are reputed. Their hormonal nature was debated by participants and deemed dangerous, given the long number of years women would need to be exposed to hormones. Consequently, we don't agree with long progesterone exposure as a viable contraceptive option at this time.

Surprisingly, men and women both expressed a heightened interest in IUDs. This method was praised for having non-hormonal versions and for also allowing reversibility, if desired in the future. Reversibility was seen as a form of empowerment in reproductive decisions, especially given poverty and relational insecurity. This finding represents an important breakthrough for program development that should be

regarded in realm of the complex gender scopes coexisting in rural Haiti. Including IUDs as LAC alternatives can increase uptake in women who are current reliable users and those to whom contraceptives do not appeal. The high interest found in the participants illustrates the plausibility of increased uptake given their propensity and desire to provide high pregnancy protection by reducing user related errors (EngenderHealth, 2002). Noteworthy, is the fact that given there is no prior exposure to IUDs; no negative experiences that shape the community's beliefs about this method were shared.

In addition, demographic factors coupled with the low socioeconomic indicators the country faces as well as the gender dimensions, are often associated with an increase in riskier sexual behavior (Deschamps, Pape, Hafner, & Johnson, 1996). Consequently, barrier methods and STI prevention should be included in the educational package for eligibility of IUDs to avoid other intricacies of the issue (EngenderHealth, 2002).

4.3 Programmatic Implications and Policy

The participants manifested openness to IUDs as a reversible alternative was aligned with our hypothesis of fertility protection when choosing a LAC. The quick return to fertility and non-disruption of the menstrual cycle fosters two of the most important aspects of reproductive health that Haitians value (EngenderHealth, 2002). Nevertheless, acknowledging that the reversibility of this method can compromise adherence by early removal, it still grants back to women the power for reproductive

decision-making while considering their personal apprehensions with FP. Apprehensions that could even compromise their partner's support.

Accounting for the prominent role gender and relationships have in shaping policy and implementation around reproductive health can create a relevant practice that is critical for family planning program's success. Multiple efforts around family planning have been designed with data from national surveys (M. C. Maternowska, 2006; Schwartz, 2000; T. Schwartz, 2009). Their modest success illustrates the need to include theory-based research originated from rich qualitative data that provides a modeling between determinants of behavior and actual behaviors allowing hypothesizing and testing these relationships. Hence, programming can utilize these findings to target the specific determinants enhancing protective behaviors for reproductive health. Shifting the discourse from the purely ethnographic dialogue on gender to policy and implementation, entities can finally design effective programs that fulfill Haitians' needs and expectations for their reproductive lives. Overall, the evidence presented above clarifies that ensuring contraceptive access is not sufficient to satisfy the high unmet need for contraception experienced by Haitian women (M. C. Maternowska, 2006; T. Schwartz, 2009). Having a clinic in the community will hopefully provide consistent access to contraceptives, staff that can help the women stop contraception and provide help when side effects are experienced. Men and women who seek family planning counseling should be educated in all possible modern contraceptive choices

and given a safe space to develop questions which answers can lessen misperceptions and ease apprehensions for uptake (EngenderHealth, 2002). We strongly believe after the analysis of the data that the discourse in family planning, and the program development, is incomplete if gender and power spheres are regarded only as ethnographic pieces.

4.4 Implications for further research

Prospective research should aim to fill the gap in LAC decision-making in Haiti. Rather than cross sectional descriptive studies like the one conducted by us, the new evidence generated should embody longitudinal studies that follow users through the decision making process considering the complex gender issues. Subsequently, decisions and satisfaction should be evaluated at different points in time to provide a more complete picture of Haitian couple's reasons for postponing uptake and procedures, regretting them and even documenting the journey of using other methods before sterilization. Given Fondwa is a mountainous region with mostly confined population, a design of this nature has high feasibility. In addition, the first health care facility that is now newly opened is focusing on reproductive health allowing follow up on individuals who elect contraceptives monitoring their acceptability and side effects among others. This center also allows for possible establishment of registries for accurate data collection (e.g. birth registry and birth certificates, postpartum complications, implementation of contraception).

Further research should include an analysis of the local perceptions around LAC that were identified in this study to develop and prioritize strategies for relevant program elaboration. In addition, a foreseeable testable hypothesis would be the wide acceptability of IUDs, especially non-hormonal alternatives, and the monitoring of acceptability and adherence.

Subsequently, investigating acceptability and feasibility of programmatic guidelines considering gendered perspectives of reproductive health with a focus on developing guidelines for education and material for community based peer educational programs. There is a need to review the content displayed in prior failed family planning programs to suggest appropriate alternatives that consider those gaps and incorporate new outlooks on gender and power as sources of knowledge for development of program elements. Lastly, studies that disclose the threats of uptake, decision-making and adherence of long acting contraception could support program developer's efforts to provide successful programmatic guidelines of the women and men of Haiti.

4.5 Study strengths and limitations

First and foremost, we acknowledge the limitations associated with the use of qualitative methods and their inability to generalize and transfer these results to other cultural constructs. Given the nature of the design and the use of purposive sampling, the analyzes can carry biases by including individuals that are in fact more keen to

discuss family planning topics. The location of the study potentially limits the extent to which the results can be considered applicable outside the rural context of Haiti.

Translation of interviews from the local language is recognized as an important drawback. In an attempt to minimize distortions two research team members reviewed translations that were done directly from French Creole. Nevertheless, we recognize the limited weight that was placed on specific wording and phrasing of responses, choosing to focus most importantly on overarching themes.

On the other hand, we believe the strengths of this study lies in the richness of the data collected that allowed inclusion of key voices not usually accounted: men, alternative family planning providers, young adults, religious leaders and female elders. This safeguarded saturation and fostered source triangulation that fills an important gap in literature and contributes much needed information for policy and implementation of family planning programs.

5. Conclusion

This study showed the need to broaden LAC knowledge gaps with a special focus on counseling services for prospective patients. The high prevalence of fear of side effects among participants with an unmet need for contraception reflects the pressing need for knowledge and availability of contraceptive methods, plus an expansion in method choices that allow women to adapt to their different stages of reproductive life. The extent to which a program can serve successfully women with unmet needs depends directly on the nature of women's perception and reasons for nonuse, therefore, qualitative research and inquiries in gender and power are key for program development. Women need more information from their health care providers in order to increase responsible choice of methods and adherence through consistent use.

6. Appendix

6.1 Appendix A

Consent Form for In-depth Interviews to Participate in a Research Study Modern Contraception Beliefs and Practices in Fondwa, Haiti

Principal Investigator: David Walmer MD, Interviewer: Nicole Jadue, MD

Thank you for taking the time to talk with us. We are a group of doctors doing research to understand your beliefs and knowledge on contraception use. You are being asked to take part in this research study because you are a member of one of the communities we wish to know more about for this study. The information we gather as a part of this study will be shared with Family Health Ministries, a nonprofit organization from the United States, and with research units at Duke University. We hope to tailor a family planning program for the new birthing center we are building in your community with the information you give us.

Description of procedures

We have been using a survey to ask people about their birth spacing methods and modern contraception use. We would like your help to determine where some of the knowledge shared with us from your community comes from. We anticipate that it will take about 60 minutes to review the questions.

Confidentiality

Your identity will be protected at all times, and even when we share this information outside the room, your anonymity will be totally secure. The interviews will be tape recorded so the responses can be translated into English and analyzed. The tapes will be kept in a locked box, which only the researchers will have access to and will be destroyed after the translations have been completed.

Voluntary Participation and Withdrawal

Participation in the interview is strictly voluntary. If you choose to leave and not participate in the study, it will not prevent you from receiving any of the health care services from the new birthing center and Family Health Ministries.

Questions

Please feel free to ask me any questions now. If you have any questions after you leave this interview you may contact Lauren MacRaven 46484413 at any time.

Authorization

I have read (or someone has read to me) this form and I agree to participate in the project described above. My signature indicates that I have received a copy of the consent form.

_____ **Name and Signature of Participant** _____ **Date**

_____ **Name and Signature of Person Requesting Consent**

6.2 Appendix B

Female Interview Guide

Pregnancy and Beliefs

Let's talk a little bit about families

1. In this community, who makes the decisions about the number of children in the family? (Probe: husbands? Wives? Mother-in-laws? Religious or community leaders?)
2. What is the ideal number of children in a family?
 - a) What is the ideal age to start having children?
 - b) What influences the number of kids in a family? (Probe: Money? Profession/work, i.e., agriculture, etc.?)
3. Who makes decisions about the number of kids? (Probe: Men? Women? Etc.)
4. How are these decisions made?
5. Do you think a woman should wait a certain amount of time between one child and the next pregnancy?
6. Are there any benefits in waiting more time between pregnancies?
7. According to you, who should take the responsibility for having children, not having children and child spacing? (Probe: Men? Women? Etc.)
8. According to you, what are the reasons for:
 - a) Having a lot of children?

- b) Having few children?
 - c) Waiting before having another child?
8. After how many children should women stop having children? (Alternative: After how many children do women want to use contraception to avoid another pregnancy?)
 9. At what age do women in this community stop having children?
 10. At what age do you think a woman should start having children?
 11. At what age young girls in this community are starting to get pregnant?
 12. At what age do you think girls and boys are starting to have sex?
 13. Do you think because this is happening, people engaging in sexual activity should use a contraceptive method to avoid a pregnancy?

Beliefs / Modifying factors

11. Tell me a little about what you know about contraception use in this community.
 12. What methods do women use in this community when they want to avoid a pregnancy?
 13. And if they want to wait, for example, many more years?
 14. Let's talk a little about some contraceptive methods.
- (Probe: If participants are unfamiliar with a method, explain what it is and how it works.)
- Then ask: Does this sound like something people might be interested in?)

15. CONTRACEPTIVE PILLS

(Probe: Efficacy? Characteristics? Perception or attitudes of partners?)

- a) What do people in the community know about CONTRACEPTIVES PILLS?
- b) Where/from whom do they obtain information about the pills?
- c) Where can they obtain the pills in the community?
- d) Do you believe the pills work?
- e) Do you believe they are a suitable method for the people in this community?
- f) What are some reasons women might not want to use the pills?
- g) Why would a woman who had already decided to use the pills change her mind?

16. MALE CONDOMS

(Probe: Efficacy? Characteristics? Perception or attitudes of partners?)

- a) What do people in the community know about MALE CONDOMS?
- b) Where/from whom they you obtain information about the condoms?
- c) Where can they obtain the condoms in the community?
- d) Do you believe condoms work?
- e) Do you believe they are an appropriate method for this community?
- f) What are some reasons men might not want to use condoms?

17. INJECTABLE CONTRACEPTIVES

(Probe: Efficacy? Characteristics? Perception or attitudes of partners?)

- a) Have you heard about INJECTABLE CONTRACEPTIVES?

- b) Who told you about them? Or Where did you obtained information about the injectables?
- c) Where can you obtain the injectables in the community?
- d) Do you believe injectables work?
- e) What are some reasons women might not want to use injectables?
- f) Why would a woman who had already decide to use this methods we talked about before, change her mind?

18. IMPLANTS

(Probe: Efficacy? Characteristics? Perception or attitudes of partners?)

- a) What do you know about IMPLANTS?
- b) What have you heard about Implants?
- c) Do people in the community talk about them?
- d) Where/from whom do they obtain information about the implants?
- e) Where can they obtain the implants in the community?
- f) Do you know anyone who has used these methods? What was her experience?
- g) Do you believe implants work?
- h) Do you think it is an appropriate method for this community?
- i) What are some reasons women might not want to use implants?

- j) Why would a woman who had already decide to use this methods we talked about before, change her mind?

Intrauterine Device's Perception

19. Have your heard about INTRAUTERINE DEVICES?
20. Who told you about IUD's?
21. What are some of the good things you have heard about them?
22. What are some of the bad things you have heard about them?
23. Do you believe IUDs work?
24. Do you know anyone who has used these methods? What was her experience?
25. Do people in the community talk about them? What do they know?
26. What would women in this community think about having a contraceptive device inserted into the uterus? (Explain that this is what and IUD is)
27. If a woman wanted to use the IUD, what are the some of the things that might make it hard for her to do so?
28. Where can women obtain the IUD in the community?
29. How would the community react if a woman wanted to use an IUD?
30. How would their husbands react? (probe: and the family?)

Tubal ligation

31. Have your heard about TUBAL LIGATION?

32. Who told you about Tubal ligation?
33. What are some of the good things you have heard about it?
34. What are some of the bad things you have heard about it?
35. Do you know anyone who has undergone this procedure? What was her experience?
36. Do people in the community talk about tubal ligation? What do they know about it?
37. What would women in this community think about having a tubal ligation which involves a surgical procedure?
38. If a woman wanted this procedure, what are the some of the things that might make it hard for her to do so?
39. How would the community react if a woman wanted to have a tubal ligation?
40. How would their husbands react? (probe: and the family?)

Vasectomy

41. Have you heard of vasectomy? If interviewee is unfamiliar with the method, explain what it is and how it works. Then ask: Does this sound like something people might be interested in? Please explain.
42. Who told you about it?
43. What are your thoughts and opinion about it?

44. How would men in this community react to the fact that this is a surgical method?

45. How about their wives?

Individual perceptions

46. Should women use contraception? (Probe: Why?)

47. Should men use contraception? (Probe: Why?)

48. What do you think can happen to you if you use contraception?

49. Are women likely to get pregnant if they don't use contraceptive methods?
How likely?

50. Which methods do you think are better: modern or traditional methods?
What would you chose to use?

51. What are some reasons women in the community might choose a traditional method over the modern methods we have been talking about?

52. What traditional methods are the most used methods in the community you hear about?

53. In general, do you think women keep contraceptives, whatever they are using, a secret? Or do they talk about it with their husbands or others?

54. What methods have you used to space births or to not have children?

55. Why did you choose these methods?

56. When did you start using contraception? How old were you? (Probe: post partum, after a certain number of children, etc)
57. How long after you became sexually active did you start using contraception?
58. How did you make the decision to use these methods? (Probe: On your own? With your husband? Following the instructions of your husband? Following the advice of other members of your family? Following the advice of your friends?)
59. What did you like about these methods?
60. Did you tell anyone about your decision? (Probe: Who?)
61. When did you tell them? (Probe: Before making the decision? Before actually getting the method? Afterwards?)
62. What was the reaction of others (husband? mother? etc.) to your decisions?
63. What was their opinion about it?
64. Does your community of family encourage or discourage the use of contraception for spacing births? Please explain.

Likelihood of action / barriers to access / adherence

65. Do you think you are able to use contraceptives? (Probe: Consistently? Correctly?)

66. Do you think you will be able to use a contraceptive method for a long time?

(Probe: why?)

67. What will make it difficult?

68. What barriers prevent use of the three methods we have discussed in the community (the IUD, vasectomy, tubal ligation)? Please explain.

69. What type of benefits will the methods provide for this community and for you and your family?

70. In this community, what are the best ways to inform people about these methods?

7. References

- 360., F. (2004). Sample focus group discussion and in-depth interview guides:Community Awareness of and Barriers to Longer-Acting and Permanent Contraception.
- Ahmed, S., Li, Q., Liu, L., & Tsui, A. O. . ((2012).). Maternal deaths averted by contraceptive use: an analysis of 172 countries. *The Lancet*, 380(9837), 111-125.
- Allman, J. (1982). Fertility and Family Planning in Haiti. *Stud Fam Plann*, 13(8/9), 237-245. doi: 10.2307/1965563
- Allman, J., & Allman, S. N. (1987). Women's status and family planning in Haiti. *Int J Sociol Fam*, 17(1), 109-120.
- Allman, J., & May, J. (1979). Fertility, Mortality, Migration and Family Planning in Haiti. *Population Studies*, 33(3), 505-521. doi: 10.2307/2173895
- APF. (2015). University of Fondwa: History. Retrieved January, 2016, from <http://ufondwa.org/about/history/>
- Ashford. (2003, 2003). Unmet Need for Family Planning: Recent Trends and Their Implications for Programs. Measure Communication Retrieved January, 2015, from <http://www.prb.org/pdf/unmetneedfamplan-eng.pdf>
- Boulos, M. L., Boulos, R., & Nichols, D. J. (1991). Perceptions and practices relating to condom use among urban men in Haiti. *Stud Fam Plann*, 22(5), 318-325.
- Chakhtoura, N. (2012). Factors Associated with Birth Spacing and Contraceptive Use in Leogane, Haiti. Thesis Master of Science in Global Health Graduate School of Duke University.
- Chowdhury, M. E., Botlero, R., Koblinsky, M., Saha, S. K., Dieltiens, G., & Ronsmans, C. (2007). Determinants of reduction in maternal mortality in Matlab, Bangladesh: a 30-year cohort study. . *The Lancet*, 370(9595), 1320-1328. doi: [http://dx.doi.org/10.1016/S0140-6736\(07\)61573-6](http://dx.doi.org/10.1016/S0140-6736(07)61573-6)

- Cohen S. (2010). Family Planning and Safe Motherhood: Dollars and Sense. Guttmacher Policy Review Spring 2010. Retrieved 2, 13, from <https://http://www.guttmacher.org/pubs/gpr/13/2/gpr130212.html>
- Conde-Agudelo, A., Rosas-Bermúdez, A., & Kafury-Goeta, A. (2006). Birth spacing and risk of adverse perinatal outcomes: A meta-analysis. *JAMA*, 295(15), 1809-1823. doi: 10.1001/jama.295.15.1809
- Deschamps, M. M., Pape, J. W., Hafner, A., & Johnson, W. D., Jr. (1996). Heterosexual transmission of HIV in Haiti. *Ann Intern Med*, 125(4), 324-330.
- EngenderHealth. (2002). Contraceptive Sterilization: Global Issues and trends: Chapter 5: Factors influencing sterilization use and outcomes. Contraceptive Sterilization: Global Issues and trends. <https://http://www.engenderhealth.org/pubs/>.
- FHI, F. H. I. (2007). Addressing Unmet Need for Family Planning in Africa: Long-Acting and Permanent Methods. Retrieved January, 2015, from <https://http://www.k4health.org/toolkits/fpsuccess/long-acting-and-permanent-methods-addressing-unmet-need-family-planning-africa>
- FHM. (2016). Family Health Ministries: About us: Mission. Retrieved January 2016, from <http://familyhealthministries.org/about-us/mission/>
- Gebremariam, A., & Addissie, A. (2014). Intention to use long acting and permanent contraceptive methods and factors affecting it among married women in Adigrat town, Tigray, Northern Ethiopia. *Reprod Health*, 11(24), 1-9.
- Kavanaugh ML and Anderson RM. (2013). Contraception and Beyond: The Health Benefits of Services Provided at Family Planning Centers. Retrieved January, 2015, from <http://www.guttmacher.org/pubs/health-benefits.pdf>
- Kraft, J. M., Wilkins, K. G., Morales, G. J., Widyono, M., & Middlestadt, S. E. (2014). An evidence review of gender-integrated interventions in reproductive and maternal-child health. *J Health Commun*, 19 Suppl 1, 122-141. doi: 10.1080/10810730.2014.918216
- Lowenthal. (1987). Marriage is 20 Children are 2: the Cultural Construction of Conjugality and the Family in Rural Haiti. . Unpublished doctoral dissertation, The Johns Hopkins University(Baltimore, Maryland.).

- Maternowska, M. (2006). *Reproducing Inequities: Poverty and the Politics of Population in Haiti*. . New Brunswick: Rutgers University Press.
- Maternowska, M. C. (2006). *Reproducing Inequities: poverty and the politics of population in Haiti*. United States of America.
- Maynard-Tucker, G. (1994). Indigenous perceptions and quality of care of family planning services in Haiti. *Health Policy Plan*, 9(3), 306-317.
- Maynard-Tucker, G. (1996). Haiti: Unions, fertility and the quest for survival. *Social Science & Medicine*, 43(9), 1379-1387. doi: [http://dx.doi.org/10.1016/0277-9536\(96\)00034-2](http://dx.doi.org/10.1016/0277-9536(96)00034-2)
- Maynard-Tucker, G. (1996). Haiti: unions, fertility and the quest for survival. *Soc Sci Med*, 43(9), 1379-1887.
- MSPP et al., C., MSPP, IHE, and ICF International. (2012). *Haiti Mortality, Morbidity and Service Utilization Survey: Key Findings*. . In EMMUS-V (Ed.). Calverton, Maryland, USA: MSPP, IHE, and ICF International.
- Murray. (1976). *Women in perdition: Ritual fertility control in Haiti*. from Chapel Hill: U. of North Carolina.
- Peragallo Urrutia Rachel , M. D., Small Maria, Urrrutia Eugene , Tinfo Nicole , Walmer David K. (2012). Unmet health needs identified by Hatian women as priorities for attention: a qualitative study. *Reproductive Health Matters*, 20(39), 93-103.
- Richman. (2008). *A More Powerful Sorcerer: Conversion and Capital in the Haitian Diaspora*. . *New West Indian Guide*, 81(1-2), 1-43.
- Schwartz. (2000). "Children are the Wealth of the Poor:" High Fertility and the Organization of Labor in the Rural Economy of Jean Rabel, Haiti. University of Florida. Gainesville, Florida.
- Schwartz, T. (2009). *Fewer men, more babies: Sex, family, and fertility in Haiti*.: Lexington Books.
- Sedgh, G. e. a. (2007). *Women With an Unmet Need for Contraception in Developing Countries and Their Reasons for Not Using a Method*. . Retrieved January, 2015, from <https://http://www.guttmacher.org/pubs/2007/07/09/or37.pdf>

- Sheeran, P., & Abraham, C. (1996). The health belief model. . Predicting health behaviour, 2(29-80.).
- Singh, S., et al. (2009, 2009). Adding It Up: The Costs and Benefits of Investing in Family Planning and Maternal and Newborn Health. Retrieved January, 2015, from <https://http://www.guttmacher.org/pubs/AddingItUp2009.pdf>
- Stover, J., & Ross, J. . (2010). How increased contraceptive use has reduced maternal mortality. . Matern Child Health J, 14(5), 687-695. doi: 10.1007/s10995-009-0505-y
- Strauss, A., & Corbin, J. . (1994). Grounded theory methodology.
- UN. (2000). United Nations General Assembly: United Nations Millennium Declaration. UN General Assembly A/RES/55/2. 1-9-2000, 55th session(agenda item 60(b)).
- UNDP. (2015). Human Development Report 2015: Work for Human Development. In UNDP (Ed.). 1 UN Plaza, New York, NY 10017, USA: UNDP.
- UNFPA. (2011, September 2011). Progress Profile for Haiti: Global Programme to Enhance Reproductive Health Commodity Security. Retrieved January, 2015
- UNFPA. (2015, 26 February 2015). Slashing Haiti's maternal and infant death rates, one delivery at a time Retrieved January 2015, 2015, from <http://www.unfpa.org/news/slashing-haiti%E2%80%99s-maternal-and-infant-death-rates-one-delivery-time - sthash.sT5qbqdP.dpuf>
- WHO. (2013, November 2013). Women`s Health: Fact sheet N°334. Retrieved January, 2015, from <http://www.who.int/mediacentre/factsheets/fs334/en/>
- WHO. (2015a, Updated May 2015). Family Planning/ Contraception: Fact Sheet N°351 Retrieved 2015
- WHO. (2015b, November 2015). Maternal Mortality: Fact sheet N°348. Retrieved January, 2015, from <http://www.who.int/mediacentre/factsheets/fs348/en/>
- WHO et al. (2015). Trends in maternal mortality: 1990 to 2015: estimates by WHO, UNICEF, UNFPA, World Bank Group and the United Nations Population Division. Retrieved January, 2015, from <http://www.who.int/reproductivehealth/publications/monitoring/maternal-mortality-2015/en/>

Yang, F. (2013). Health Beliefs and Contraception Use in Leogane, Haiti: A Qualitative Study. Thesis Master of Science in Global Health Graduate School of Duke University.