

2018

Barriers to Contraceptive Use in Nicaragua

Ellen Motley
Augsburg University

Follow this and additional works at: <https://idun.augsburg.edu/etd>



Part of the [Women's Health Commons](#)

Recommended Citation

Motley, Ellen, "Barriers to Contraceptive Use in Nicaragua" (2018). *Theses and Graduate Projects*. 383.
<https://idun.augsburg.edu/etd/383>

This Open Access Thesis is brought to you for free and open access by Idun. It has been accepted for inclusion in Theses and Graduate Projects by an authorized administrator of Idun. For more information, please contact bloomber@augburg.edu.

I. Title Page

Barriers to Contraceptive Use in Nicaragua

By: Ellen Motley

Advisor: Stephanie Elko MS, PA-C

Paper Submitted in Partial Fulfillment

Of the Requirements for the Degree

Of Master of Science

Physician Assistant Studies

Augsburg College

August 15, 2017

II. Table of Contents

I. Title Page.....	1
II. Table of Contents.....	2
III. Abstract.....	3
IV. Introduction.....	4
V. Background.....	5
VI. Methods.....	7
VII. Discussion.....	9
VIII. Conclusion.....	15
IX. References.....	16
X. Appendices.....	18

III. Abstract

Many barriers to contraceptive use exist in sexually active Nicaraguan women, leading to increasingly high rates of unintended pregnancies among these women. Higher rates of depression, domestic abuse, and unemployment are also seen in this group of women. These women face more complications during pregnancy and receive higher rates of unsafe abortions, impacting the mom and the infant, as well as the community in which they live. Some of the barriers to contraceptive use include lack of access to healthcare, lack of knowledge about contraceptive methods, negative attitudes about contraceptives, providers' fear of criticism, previous dissatisfaction or contraceptive failure, family history of teen pregnancy, cultural and media-related stigma, and the cultural belief of Machismo. These barriers were identified through literature review and fieldwork completed in Nicaragua. Recognizing these barriers allows interventions to take place to reduce the number of unintended pregnancies and the problems they pose on the woman, infant, and community. While not all barriers can be eliminated, steps can be taken to improve access and education about contraceptive use to allow all women of reproductive age to have a choice about their sexual health.

IV. Introduction

Many barriers to contraceptive use in Nicaragua exist, leading to increasingly high rates of unintended pregnancies. These pregnancies often lead to physical, emotional, and financial burdens on the mother, infant, and the community, as well as an increase in pregnancy-related complications and the performance of unsafe abortions¹. Higher rates of domestic violence, depression, and unemployment are also seen in this group of women, posing immediate threat to the newborns¹. Identifying the barriers to contraceptive use in Nicaragua is the first step to reducing the amount of unintended pregnancies and the burdens they pose on the mother, infant, and community. To conduct research on this topic and help reduce these burdens, the following research question was developed: What are the barriers to contraceptive use in Nicaragua, leading to increasing rates of unintended pregnancies among Nicaraguan women?

Several barriers to the use of contraception in Nicaragua have been identified and will be discussed in further detail in subsequent sections, but the main barriers include lack of access to healthcare clinics, inaccurate knowledge about contraceptive methods among both women and healthcare providers, negative attitudes about the use of contraceptives among providers, providers fear of criticism from colleagues and job loss due to job insecurity of health care providers, previous dissatisfaction or contraceptive failure, family history of teen pregnancy (as well as physical, sexual, or emotional abuse, or drug use), cultural and media-related stigma regarding the use of contraceptives, and the cultural beliefs of Machismo and male dominance¹⁻¹⁰. Some of these barriers cannot easily be changed. However, steps can be taken to better educate providers and women on contraceptive methods, improve access to healthcare in both urban and rural settings, and change attitudes regarding use of contraceptives. By doing so will reduce the increasing rates of unintended pregnancies in Nicaragua and the burdens these pregnancies carry.

V. Background

An increase in unintended pregnancy has been a common trend seen across the globe in the last decade. Not only has this trend been seen in underdeveloped countries, but also in developed countries like the United States and Canada. This common trend across several different cultural and racial groups raises a few questions: Are people performing more acts of sex than previously seen? Has the use of contraceptive methods fallen out of favor? Are there barriers to the use of contraceptive methods? Out of the many possibilities for this trend, the latter question has been the most intriguing, specifically when looking at the rise in unintended pregnancies in Nicaragua. Through literature review and in-person interviews with Nicaraguan healthcare providers, this question will be further analyzed.

Nicaragua has the highest fertility rate in Latin American among women aged 15-24 years¹. Half of these adolescents are sexually active before the age of 17, with less than 20% reporting a visit with a health care provider to receive information about contraceptive options². By age 18, 30% of girls are pregnant or have been pregnant (Figure 1)³. According to one study, 11-15% of sexually active women between ages 15-24 reported using contraceptive methods, resulting in the trend mentioned above⁴. When looking at reproductive health statistics, it is important to also consider the education level of many of these women. Due to the corrupt democratic socialist Sandinista rule since 2006, basic services, including healthcare and education, have been reduced⁵. An example of this reduction in basic education and healthcare funding can be seen, as one study found 90.4% of women reported having unmet reproductive healthcare needs⁶. With the continued reduction of these basic services in the past decade, this number is unlikely to decrease.

When reviewing the sexual health education that Nicaraguan institutions offer, the majority of schools are found to teach abstinence with little or no emphasis on safe sex and the prevention of pregnancy⁶. There also seems to be an absence of parents educating their children on safe sex practices, as well as a lack of providers educating their patients⁶. Many Nicaraguan providers lack knowledge about adolescent reproductive health. Likewise, clinics with specialized services for adolescent sexual and reproductive care are few and far between. This is likely the reason that one study found the average period between first intercourse and the end of the first pregnancy to be 21.5 months, with the average age at first intercourse being 17 years⁷.

Apart from early age at first intercourse, around 65% of pregnancies in Nicaragua are unintended⁸. This high rate of unintended pregnancies, specifically in the adolescent population, has put the mothers at increased risk for complications during pregnancy and delivery. Increased rates of preterm births, low birth rate, and neonatal mortality have also been seen in this age group of women, which bring complications for the future development, health, and wellbeing of both the child and the mother⁸.

Along with pregnancy-related complications, this group of women faces higher rates of illegal and unsafe abortions, maternal mortality, and higher transmission rates of STIs and HIV¹. This also poses the risk of vertical transmission of blood born diseases from the mother to the fetus, which carries the risk for complications to the fetus' health. Women between the ages 15-24 bearing children are at two times the risk for maternal mortality, and their children face higher rates of developmental delays, neglect, and malnutrition¹. Additionally, unintended pregnancies in adolescent women make it more difficult for the mothers to complete school and leads to adverse socioeconomic consequences. With Nicaragua being the second poorest country in the western hemisphere, this continues to add to the current 43% of Nicaraguan citizens living below

the poverty line³. This often results in the healthcare costs becoming a burden on the community, as these women cannot afford the cost of healthcare. Thus, this affects not only the mother and her child, but the community as well. The financial instability that many of these women face makes it difficult to lead healthy lifestyles, and even more challenging to seek healthcare in the future when further complications arise, decreasing the quality of life for all involved.

As exhibited by the multitude of statistics provided above, it is clear that unintended pregnancies and all of the complications and burdens they carry pose a great issue, specifically in Nicaraguan women. Because of this, it can safely be assumed that there are evident barriers to the use of contraceptive methods that are contributing to the rise of unintended pregnancies. These barriers need to be further identified and analyzed in order to break the seemingly popular trend being seen worldwide, and to increase the quality of care given to Nicaraguan women.

VI. Methods

Research for this topic was conducted using PubMed: US National Library of Medicine, National Institutes of Health database. Key words and phrases surrounding the research topic were entered into the search bar, and lists of related scientific articles were generated. Key words and phrases included sexual activity Nicaragua, pregnancy Nicaragua, contraception Nicaragua, birth control Nicaragua, teen pregnancy Nicaragua, unintended pregnancy Nicaragua, and reproductive health Nicaragua. Many of the same articles appeared under different key phrases. Once a large sum of article titles were found through the PubMed search engine, multiple were then requested and given 7-day access through the InterLibraryLoan via Augsburg College Library Services, as many articles were not fully available through PubMed.

Once allowed access to all articles, resources were chosen based off of relevance to the

research question, date of publication, population size studied, and the CARS credibility approach. CARS stands for Credibility (a source that is created by a person or organization who knows the subject and who cares about its quality), Accuracy (a source with information that is current, complete, and correct), Reasonableness (a source that is truthful and unbiased), and Support (a source that provides convincing evidence for the claims made or a source you can triangulate). The CARS approach was used to assure only reliable and accurate resources were used to answer the research question at hand.

Once articles were chosen, steps were taken to summarize the main points of each article. After skimming through the articles, a detailed outline was constructed with sections including introduction, background, methods, discussion, and conclusion. The resources were numbered in chronological order (1-11) based off of when the content of each resource appeared in the outline. A bibliography in AMA format was composed using all 11 resources. Finally, Nicaraguan fieldwork related to the research question was added and is outlined below.

In July, a class trip to Nicaragua offered a firsthand learning experience on how the healthcare system in Nicaragua is run. Multiple visits took place, including visits to several health centers, a children's hospital, a center for children with disabilities, and an organization that works with street children. At each visit, talks with different healthcare providers took place. Other visits included a talk with an epidemiologist about current healthcare issues in Nicaragua, a visit with an HIV/AIDS survivor to hear about his struggle with the disease, and a visit to the home of a sugar cane worker suffering from chronic kidney disease (CKD) due to dehydration and contaminated water from working 18-hour days in the fields.

VII. Discussion

The barriers that will be discussed are the major barriers seen throughout the literature review, but are not an exhaustive list. The first major barrier to contraceptive use in Nicaragua is the lack of access to healthcare. With 43% of the population currently living below the poverty level, healthcare is not a feasible expenditure for most people unless it is an emergency⁷. As mentioned previously, facilities that offer adolescent sexual and reproductive health care are rare to find, so adolescents that do choose to see a provider for this type of care are usually seeing providers that lack the knowledge about adolescent care. Due to the change in policies by the Sandinista ruling, providers face poor working conditions and job insecurity, both of which have lead to providers fearing criticism from coworkers and superiors around supplying contraceptive care to the young population seeking it⁸. Also, when these providers are working under the threat of losing their job, they are much less inclined to care for unaccompanied teens or prescribe contraceptives when they are likely to face criticism⁹. If providers are choosing not to prescribe contraceptive methods to adolescent patients in fear of criticism or losing their job, they are limiting contraceptive access to adolescents' altogether.

The second barrier to be discussed is the lack of knowledge about contraceptives, both from the patients and the providers. Many young Nicaraguan women live in poverty and are of low socioeconomic status with very little education. The average Nicaraguan completes six years of school, and the sexual education they receive consists mainly of the teachings of abstinence⁸. With this type of sexual education, adolescents are receiving little to no instruction on contraceptive methods, making it understandable why contraceptive use is lacking. Sexual education and communication from parents is also lacking, leading to the same result. In terms of modern contraceptive methods, such as permanent sterilization, short-acting hormonal methods (i.e. pills, injectables, vaginal ring), long-acting reversible contraception (i.e. implants and

IUDs), barrier methods (i.e. condoms, diaphragm, sponge), and emergency contraception, more than 30% of women did not know of these methods (Figure 2)⁸. Unfortunately, when the small number of adolescents with contraceptive knowledge do seek out reproductive healthcare, many are unaware of the clinic locations or do not live near the clinics, making access a major barrier⁹. Furthermore, the centers that do provide adolescent sexual and reproductive care often lack confidentiality and are expensive, limiting their use by adolescents⁹. With this barrier, even the educated adolescents that seek out contraceptive use are falling short of visiting health care providers due to lack of access, as previously mentioned.

Additionally, Nicaraguan health care providers are lacking in contraceptive knowledge. Many providers lack experience and technical competence with contraceptive methods, particularly the intrauterine device (IUD)⁹. Under-education on contraceptive methods from providers leads to misinterpretation from the patients, as well as incorrect understanding of the methods advantages, disadvantages, failure rates, follow-up instructions, side effects, and directions for use, thus preventing women from making an informed decision⁴.

A negative attitude surrounding contraceptive methods from providers is also a barrier to their use in Nicaragua. While the IUD is one of the most common contraceptive options in the United States, it is not commonly used in Nicaragua. Many Nicaraguan providers view the IUD insertion procedure as too invasive for the patient and too liable for the provider, thus limiting its use⁹. Many providers also have suspicion about negative health affects from the IUD, such as high rates of pelvic inflammatory disease (PID) and spontaneous abortion, making the IUD an unfavorable contraceptive option. Furthermore, many providers lack the technical skills for IUD insertion and removal and choose not to use IUDs altogether⁹. These negative attitudes from providers ultimately limit access and contraceptive education to adolescents, resulting in lower

rates of contraceptive use.

Nicaraguan media and societal norms also play a role in the low rates of contraceptive use. The media often portrays unrealistic messages regarding sex and fails to show the consequences of sexual activity, such as pregnancy, emotional distress, and the transmission of STIs². The media also fails to advertise the use of contraception, leading to more taboo surrounding the topic. Additionally, these adolescents face great amounts of stigma from peers and society when receiving contraception without parental approval. They also face stigma from religion when having pre-marital sex, making it difficult to publicly seek contraception before marriage¹⁰. With such stigma present, many adolescents choose not to seek sexual and reproductive care, resulting in limited use of contraceptives.

In the adolescents who have used contraceptive methods in the past, many have faced some sort of contraceptive failure, resulting in an unintended pregnancy. Over 20% of women using periodic abstinence and the withdrawal method in the past reported unintended pregnancies, resulting in false expectations of contraceptive success in the future and complete cessation of contraceptive use altogether⁴. Likewise, dissatisfaction with contraceptive use in the past due to side effects, health concerns, inconvenience, as well as the ending of a relationship, all contributed to the cessation of contraceptive use in the future⁴. A small percentage of failures are bound to occur with any contraceptive method. However, the failure rates with periodic abstinence and the withdrawal method are much greater than with modern methods, but the failure rates have been generalized and applied to contraception as a whole, making it unfavorable to many sexually active adolescents in Nicaragua. This could be prevented with accurate education regarding all contraceptive methods. However, as previously stated, this education is greatly lacking.

High rates of family history of drug use and sexual, emotional, and physical abuse is also a barrier to the use of contraception. These behaviors are more often seen in people of low socioeconomic status, lower education levels, and in people living below the poverty level¹⁰. Likewise, these behaviors are commonly seen in Nicaragua due to the high percentage of citizens living in poverty. Teens who reported being raised in a family without a history of sexual abuse were more likely to remain sexually abstinent compared to those exposed to sexual abuse in the family¹¹. If actions can be made to decrease the amount of poverty in Nicaragua, it is likely that behaviors of drug use and sexual, emotional, and physical abuse would also decrease.

The final barrier to recognize is the Nicaraguan cultural belief of Machismo. While many aspects of medicine were discussed during the visits in Nicaragua, women's health and contraceptive use were a popular topic to be brought up (Figure 3). During several of the clinic visits, Machismo was mentioned as a main barrier to the use of contraceptives, in addition to other barriers previously discussed. Silvia Cisneros, a nurse at Centro de Mujeres Acahual (a women's health center in Managua that works with women, sex workers, HIV/AIDS survivors, and family violence) described Machismo as the belief of male dominance and superiority over women, both physically and intellectually. Silvia also stated that Machismo can present in the form of women being the property of men, commonly resulting in sexual, physical, and/or emotional abuse due to a male-dominated culture. Furthermore, Silvia talked about the effects of Machismo on the rate of contraceptive use among Nicaraguan women.

First off, Silvia mentioned that most males in Nicaragua refuse to use condoms during intercourse, as they state the stimulation is less. Condoms are the most widely offered contraceptive option in Nicaragua, yet have become one of the least commonly used contraceptive methods, having a great effect on the increase in unintended pregnancies.

Secondly, Silvia mentioned that oral contraceptive pills (OCPs), another commonly offered contraceptive option in Nicaragua, are not being used because the women are unable to hide their use of this form of contraception, resulting in their male partner finding out and opposing their use. Intrauterine devices (IUDs) are also rarely used for this same reason, as the males are able to feel the IUD strings around their partner's cervix. One of the speakers stated that the reason men oppose to their partners use of contraception is because they believe if their female partners are using contraception, they have the ability to be unfaithful. However, in reality, the majority of these women seeking contraception are doing it solely for the purpose of preventing pregnancy. This belief among the Nicaraguan men is a direct effect of Machismo. One contraceptive method that may be hidden by the Nicaraguan women is the monthly, bimonthly, or trimonthly hormonal shot. However, this method often fails in these women, as they are unable to consistently make it to the clinic on time to receive this method of contraception.

Another key issue of Machismo culture is the male belief of "spreading their seed" as a sign of masculinity. This commonly results in the males leaving their partner if she becomes pregnant. This is because the Nicaraguan males see that having as many children with as many different women is a sign of their dominance and power. As a result, many Nicaraguan women become single mothers with multiple children, often dropping out of school, making it difficult to find a job to support themselves and their children. Many of these women are also evicted from their homes by their parents, increasing the already high homeless population. Finally, Silvia discussed Machismo in Nicaragua leading to rape and sexual violence among young women.

While in the rural community of Matagalpa, Casa Materna was visited. Casa Materna is a birthing facility located near the local hospital that houses pregnant mothers for the weeks

leading up to their due date to help reduce births in the rural communities, as well as travel time to the hospital in the case of complicated deliveries. The mothers currently living at Casa Materna were talked to and a main theme among these women was their partners leaving shortly after finding out they were pregnant, a direct result of Machismo.

With the identification of the barriers discussed through research and Nicaraguan fieldwork, interventions can be made to increase the use of contraceptive methods in Nicaragua. Such interventions include opening more clinics in rural settings to allow better access to sexual and reproductive health care. More education should also be placed on adolescent care and sexual and reproductive care in the medical training that the providers receive. In Nicaraguan schools, sexual education could focus more on safe-sex rather than abstinence. Educating teens on contraceptive methods and their accompanied advantages, disadvantages, failure rates, side effects, and directions for use would also increase the knowledge teens have surrounding contraception. If schools continue to teach abstinence, they should also focus on the consequences of sex and be realistic about sexual activity occurring among their students.

Providers should also educate the parents about the importance of talking to their children about sex and set realistic expectations (i.e. if the child chooses to participate in sex, they will use at least one contraceptive method each time, such as a condom). Finally, myths regarding contraceptive methods need to be debunked in order to increase providers prescribing these methods. With small steps towards these interventions, the use of contraceptive methods would likely to rise, and the rate of unintended pregnancies and the consequences they bring would hopefully start to descend.

VIII. Conclusion

Many barriers to the use of contraceptives in Nicaragua have been identified, leading to an increase in unintended pregnancies. The increase in unintended pregnancies has led to an increase in pregnancy-related complications and financial and emotional burdens among Nicaraguan women and their children. The increase in unintended pregnancies has also left many of these families living in poverty. The first step in preventing a further increase in unintended pregnancies in Nicaragua is identifying the barriers present, which have been outlined in this literature review. Identified barriers include limited access, lack of knowledge, conflicting views from providers, negative experiences with contraceptives, stigma surrounding the subject, and the cultural belief of Machismo. By recognizing these barriers, actions can be taken to help the women in Nicaragua with family planning and reduce both maternal and neonatal mortality, as well as improve the quality of life for future Nicaraguan mothers and their children.

IX. References

1. Samandari G, Speizer IS. Adolescent Sexual Behavior and Reproductive Outcomes in Central America: Trends over the Past Two Decades. International perspectives on sexual and reproductive health. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2895925/>. Published March 2010. Accessed May 17, 2017.
2. Meuwissen LE, Gorter AC, Knottnerus AJA. Impact of accessible sexual and reproductive health care on poor and underserved adolescents in Managua, Nicaragua: a quasi-experimental intervention study. Journal of Adolescent Health. [http://www.jahonline.org/article/S1054-139X\(05\)00027-3/fulltext](http://www.jahonline.org/article/S1054-139X(05)00027-3/fulltext). Published January 2006. Accessed June 27, 2017.
3. Decat P, Meyer SD, Jaruseviciene L, et al. Sexual onset and contraceptive use among adolescents from poor neighbourhoods in Managua, Nicaragua. The European Journal of Contraception & Reproductive Health Care. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4487549/>. Published March 4, 2015. Accessed May 17, 2017.
4. Ali M, Cleland J. Sexual and reproductive behaviour among single women aged 15–24 in eight Latin American countries: a comparative analysis - ScienceDirect. <http://www.sciencedirect.com/science/article/pii/S0277953604003466>. Published March 2005. Accessed June 27, 2017.
5. Luffy SM, Evans DP, Rochat RW. "Siempre me critican": barriers to reproductive health in Ocotol, Nicaragua. Revista Panamericana de Salud Pública. http://www.scielosp.org/scielo.php?script=sci_arttext&pid=S1020-49892015000400009&lng=en&nrm=iso&tlng=en. Published May 2015. Accessed May 17, 2017.
6. Nelson E, Edmonds A, Ballesteros M, et al. The unintended consequences of sex education: an ethnography of a development intervention in Latin America. Anthropology & Medicine. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4200585/>. Published May 4, 2014. Accessed May 17, 2017.
7. The CARS Checklist (Credibility, Accuracy, Reasonableness, Support). http://novella.mhhe.com/sites/0079876543/student_view0/research_center-999/research_papers30/conducting_web-based_research.html. Published 2003. Accessed August 1, 2017.
8. Rios-Zertuche D, Blanco LC, Zúñiga-Brenes P, et al. Contraceptive knowledge and use among women living in the poorest areas of five Mesoamerican countries. Contraception. <https://www.ncbi.nlm.nih.gov/pubmed/28126542>. Published January 16, 2017. Accessed May 21, 2017.

9. Hubacher D, Vilchez R, Gmach R, et al. The impact of clinician education on IUD uptake, knowledge and attitudes: results of a randomized trial. *Contraception*. <https://www.ncbi.nlm.nih.gov/pubmed/16730497>. Published June 2006. Accessed May 21, 2017.
10. Meuwissen LE, Gorter AC, Segura Z, et al. Uncovering and responding to needs for sexual and reproductive health care among poor urban female adolescents in Nicaragua. *Tropical Medicine & International Health*. <http://onlinelibrary.wiley.com/doi/10.1111/j.1365-3156.2006.01741.x/full>. Published October 16, 2006. Accessed May 17, 2017.
11. Fernandez LF, Solorzano RM, Valverde MF, et al. Determinants of sexual abstinence and condom use among Central America adolescents. *International journal of adolescent medicine and health*. <https://www.ncbi.nlm.nih.gov/pubmed/21404889>. Published December 2010. Accessed June 27, 2017.

X. Appendices

Figure 1. Percentages of Nicaraguan girls who are pregnant or have ever been pregnant by age 18. The grey line represents the mean value for girls ages 13-18.

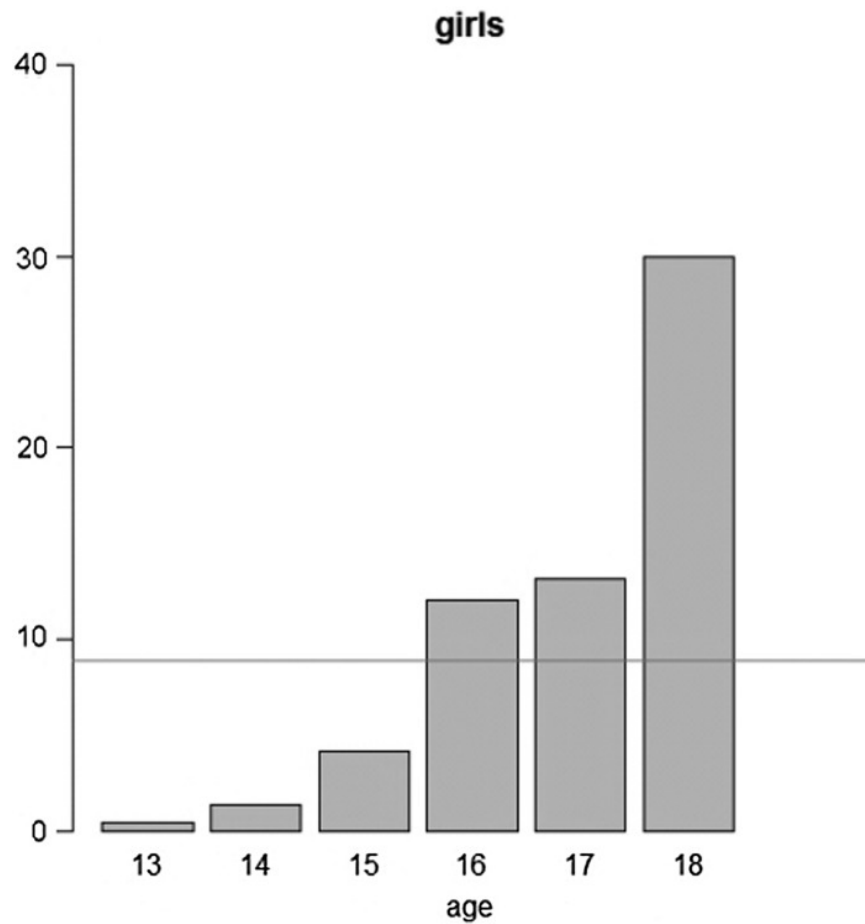


Figure 2. Knowledge about and use of contraceptive methods among women in the poorest areas in Mesoamerica.

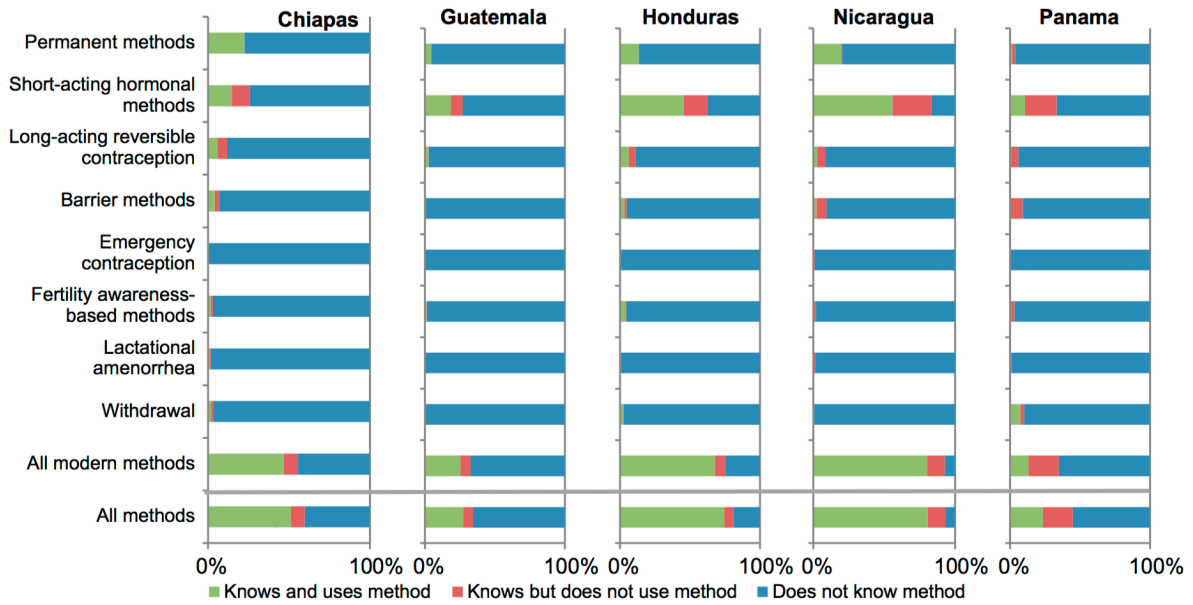


Figure 3. Below is a poster found in a private clinic in Managua. The top two rows depict effective contraceptive methods (i.e. hormonal implant, IUD, monthly hormonal shot, OCP, lactation, vaginal ring), while the bottom two rows show ineffective methods (i.e. male and female condoms, the withdrawal method, natural family planning). Note that many Nicaraguan clinics do not offer all of the listed contraceptive options.





Augsburg University Institutional Repository Deposit Agreement

By depositing this Content ("Content") in the Augsburg University Institutional Repository known as Idun, I agree that I am solely responsible for any consequences of uploading this Content to Idun and making it publicly available, and I represent and warrant that:

- I am either the sole creator or the owner of the copyrights in the Content; or, without obtaining another's permission, I have the right to deposit the Content in an archive such as Idun.
• To the extent that any portions of the Content are not my own creation, they are used with the copyright holder's expressed permission or as permitted by law. Additionally, the Content does not infringe the copyrights or other intellectual property rights of another, nor does the Content violate any laws or another's right of privacy or publicity.
• The Content contains no restricted, private, confidential, or otherwise protected data or information that should not be publicly shared.

I understand that Augsburg University will do its best to provide perpetual access to my Content. To support these efforts, I grant the Board of Regents of Augsburg University, through its library, the following non-exclusive, perpetual, royalty free, worldwide rights and licenses:

- To access, reproduce, distribute and publicly display the Content, in whole or in part, to secure, preserve and make it publicly available
• To make derivative works based upon the Content in order to migrate to other media or formats, or to preserve its public access.

These terms do not transfer ownership of the copyright(s) in the Content. These terms only grant to Augsburg University the limited license outlined above.

Initial one:

[x] I agree and I wish this Content to be Open Access.

[] I agree, but I wish to restrict access of this Content to the Augsburg University network.

Work (s) to be deposited

Title: Barriers to Contraceptive Use in Nicaragua

Author(s) of Work(s): Ellen Motley

Depositor's Name (Please Print): Ellen Motley

Author's Signature: [Handwritten Signature] Date: 8/27/18

If the Deposit Agreement is executed by the Author's Representative, the Representative shall separately execute the Following representation.

I represent that I am authorized by the Author to execute this Deposit Agreement on the behalf of the Author.

Author's Representative Signature: _____ Date: _____