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	4/27/2022
Valentina Ballesteros	Date

Exploring Social and Economic Factors that Influence Access to Sexual and Reproductive Health Services Among Venezuelan Migrant Women Living in Colombia

By

Valentina Ballesteros

Master of Public Health
Hubert Department of Global Health
Rollins School of Public Health at Emory University

_____
Dr. Karen L. Andes, PhD
Committee Chair

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Valentina Ballesteros

Bachelor of Science
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Dr. Karen L. Andes, PhD
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An abstract of
A thesis submitted to the faculty of
The Rollins School of Public Health of Emory University
in partial fulfilment of the requirement for the degree of
Master of Public Health
in the
Hubert Department of Global Health
2022

Abstract

Background Colombia has welcomed 1.7 million refugees since 2016, almost 50% of the migrant population are women and girls. Studies have shown that Venezuelan women are fleeing to Colombia to access gynecological services that were unavailable in their home country. Currently, there is a general unmet need for contraception, HIV among Venezuelans in Colombia is increasing, and bordering departments have seen an increase in gestational syphilis.

Purpose The purpose of this project is to understand what access to reproductive services looks like for Venezuelan migrants in Colombia and what external factors can limit that access.

Methods A secondary analysis from the 2020 GIFMM joint needs assessment was performed from surveys of 3,112 households of Venezuelan migrants currently living in Colombia. Binary logistic regression models were developed to evaluate the effects of social contexts on access to SRH products and services. Two primary variables of consideration were access to SRH services and access to menstrual hygiene products. Different exposure models: secured housing, access to internet, education level, minimum wage, adequate hygiene and sanitation stations, and department of residence. The data were analyzed using SAS. 9.3. Odds ratio with confidence levels of 95% were computed to ensure the validity of our models.

Results A total of 577 (23% of all female respondents) women needed access to at least one SRH service, which included access to contraceptives, condoms, pregnancy-related services, gynecological services, and/or other. Out of 577 who reported a need to access SRH services, only 55% were able to access them. The proportion of women who report having most access are located in La Guajira, where almost 80% of Venezuelan women can successfully access SRH services. In contrast, almost 40% of the women living in Bogota report having difficulty accessing SRH services. Secured housing was the only variable in our analysis of contextual factors that showed statistical significance for both access to menstrual products and SRH services. If you do not have secure housing, the odds of not having access to menstrual products or SRH services are 1.79 and 1.55 times higher compared to those individuals who have secure housing.

Discussion While many of the general findings of the present study demonstrate that Venezuelan migrants have fairly good access to menstrual hygiene products, this appears to vary wildly by geographic location and is inconsistent with the needs of the general Colombian population. Organizations on the ground are reaching migrants at the border but must expand their reach to individuals who are living in the interior of the country. All future interventions and needs assessments should take into consideration that most migrants will travel to larger cities, like Bogota, where services may be harder to access. Thus, providing individuals with resources to access those services when they arrive to larger cities is key in their full integration in Colombia.

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Acknowledgments

The topic of this thesis is deeply personal. As a first-generation graduate student and immigrant from Colombia, it was important for me to highlight issues currently going on in my home country. I have the power and privilege to bring those issues to light at an institution like Emory University, and for that, I am eternally grateful. This would not have been possible without the constant guidance and support of my thesis advisor and friend, Dr. Karen Andes. Her encouragement and confidence in my work, throughout my entire time at Rollins, built me up professionally and made the completion of this thesis possible.

To my friends at Rollins who helped maintain my sanity and together encouraged each other to produce the best work we can, I could not possibly have done this without you. And to my friends supporting me from a distance, I am indebted to you always, I'm extremely privileged to have such powerful friendships that spans years and miles.

Y, por último, un sincero y profundo agradecimiento a mis padres, María Esther Valencia y Jose Edier Ballesteros, y familia que me han ayudado a alcanzar una meta más. Gracias por su apoyo inquebrantable y por creer constantemente que estoy destinada a hacer más. Solo puedo esperar que continúe haciéndolos sentir orgullosos.

Table of Contents

Introduction

Introduction & Rationale

Venezuela was once considered Latin America's most prosperous nation due to their rich oil reserve but the decline in oil prices in 2014 triggered one of the larges economic crisis since World War II (1). Today, 96% of Venezuelans live in poverty (2). As people lived through severe food and medical shortages in Venezuela, 5.9 million people have fled their country since 2016, making it the world's largest displacement crisis (3). Although Colombia has welcomed 1.7 million Venezuelans and left borders open, migrants still face structural and historical barriers that put them in competition with the unmet needs of the local population (1). Colombia's already weakened infrastructure due to decades of armed conflict, puts migrants at risk for limited access to services which can cause more complicated health issues. In 2019, women made up almost 50% of the Venezuelan refugee population in Colombia (4). Studies have shown that Venezuelan women are fleeing to Colombia to access gynecological services that were unavailable in their home country, there is a general unmet need for contraception, HIV among Venezuelans in Colombia is increasing, and bordering departments have seen an increase in gestational syphilis (5)(6)(7).

While literature around access to sexual and reproductive health (SRH) services in humanitarian crises is vast, the Venezuelan migrant emergency is new and little literature is dedicated to their specific SRH needs. Addressing the gaps in access among migrant women is key to improving their overall health and inches them closer to full integration in their host country. To do so, this study is exploring the ways in which other social and economic factors play a role in access to SRH services.

This quantitative study used needs assessment data collected by the Grupo Interagencial de Flujos Migratorios Mixtos (GIFMM) (Inter-Agency Group on Mixed Migratory Flows) to describe the migrant population and explore the social and economic factors that lead to access to SRH services. GIFMM is the coordinating response team in Colombia led by the International Migration Organization (IMO) and the United Nations Human Rights Committee (UNHCR) created to consolidate data and response.

Problem statement

With over 550,000 women and girls of reproductive age arriving in Colombia since 2016, it is crucial to understand what factors are influencing their ability to access sexual and reproductive health to improve their livelihood and that of the communities where they reside. Bridging the gap in access to SRH services is also key to reaching one of the sustainable development goals to "achieve gender equality and empower all women and girls" (8). To do so, one of the targets is to "ensure universal access to SRH and reproductive rights." Meeting the needs of Venezuelan migrants will inch Colombia one step closer to meeting that goal.

Project purpose & Research Questions

The purpose of this project is to understand what access to reproductive services looks like for Venezuelan migrants in Colombia and what external factors can limit that access. This study has two primary aims:

1. To describe the Venezuelan migrant population currently residing in Colombia, understanding what their needs are and where some of the gaps in needs lie.

2. To understand the relationship between access to sexual and reproductive health services and the contextual factors that can affect that access.

We define access by whether the woman had a specific SRH need (access to neonatal, gynecological services, and/or contraceptive needs) in the past 30 days and whether they were able to come into possession of that service. We also define access by whether a women had access to menstrual hygiene products, which include pads, tampons, menstrual cups, and/or menstrual sponge.

Specific research questions:

- Are there differences in access to basic needs (housing, employment, nutrition) by gender?
- Which social and economic factors are associated with access to sexual and reproductive health services including access to menstrual hygiene products?
- Does location in Colombia affect access to those service?

Significance Statement

The Colombian government and organizations working on the ground, such as UNHCR, to provide aid to Venezuelan migrants in Colombia should understand where gaps in services exist to improve aid to the community. Understanding the contextual factors that exasperate those needs women can help uncover unexpected social and economic strategies that promote improved health outcomes.

Definition of Terms

AIDS	Acquired Immunodeficiency Syndrome
ART	Antiretroviral Therapy
Caminantes	Walkers. Venezuelans that migrate through the interior of Colombia by foot
DALYs	Disability Accounted Life Years
ENCOVI	2019-20 National Survey of Living Conditions in Venezuela
GDP	Gross Domestic Product
GIFFM	Grupo Interagencial de Flujos Migratorios Mixtos, led by the IOM and UNHCR, is the coordinating body for the response to the Venezuelan migrant crisis in Colombia
HIV	Human Immunodeficiency Virus
HRQoL	Health Related Quality of Life
IAHCR	Inter-American Commission on Human Rights
IOM	International Organization for Migration
MISP	Minimum Initial Service Package (MISP) for Reproductive Health
NGO	Non-governmental Organization
PAHO	Pan-American Health Organization
R4V	Inter-Agency Coordination Platform for Refugees and Migrants from Venezuela
SAS	Statistical software used for the analysis in this project
SRH	Sexual and Reproductive Health
STI	Sexually Transmitted Infection
UNHCR	United Nations Human Rights Committee
UNICEF	United Nations International Children's Emergency Fund
WASH	Water, Sanitation & Hygiene

Literature Review

Political Context and Massive Exodus from Venezuela: How did we get here?

According to the United Nations Human Rights Committee (UNHCR) 5.9 million Venezuelans have left the country to date, making it the world's largest displacement crisis (3). The history of Venezuela's journey is long and complicated. In just a matter of years Venezuela went from being one of the most prosperous countries in Latin America, with one of the richest oil reserves in the world, to a failed petrostate in the middle of massive political and economic turmoil. In the 1990s, Hugo Chavéz rose to power with promises of wealth and political redistribution through their high oil revenue. While he funded a variety of social programs and reduced poverty by 20%, his political decisions became the impetus behind the country's economic decline and inched the country towards authoritarianism. His presidency was filled with numerous human rights violations, massive debt, high inflation due to their deep reliance on oil, an overconcentration of elite minority in political power, and corrupt political systems (9). Chavez' political reforms paved the way for his predecessor—and current Venezuelan leader—Nicholas Maduro, to establish a dictatorship. Maduro strong armed his way to power through political repression, censorship, and electoral manipulation (9). In 2014 oil prices declined, and Venezuela's over reliance on oil production (oil accounts for 90% of Venezuela's exports) triggered one of the largest economic crises since World War II (10). Since 2014, Venezuela's GDP has decreased by 75% and the government's monetization of budgetary deficits has led to hyperinflation; today, 96% of Venezuelans live in poverty (2).

Living standards crashed as Venezuelans lived through severe food and medical shortages along with human rights violations, "political and personal freedoms likewise suffered, as protests became illegal, and press were unable to report freely. Routine human

rights abuses such as torture, beatings, and arbitrary detentions were common. Without heeding to calls for reforms, Maduro focused instead on consolidating political power" (2). According to ENCOVI, the 2019-20 National Survey of Living Conditions, 44% of the 15+ population is economically inactive, 79% of households live in extreme poverty, and only 3% of children were not food insecure (11). Access to basic healthcare has also seen a steep decline, where more than a fifth of Venezuelan's healthcare workers have fled the country, hospitals remain under staffed and under equipped, and infectious diseases such as HIV, chagas, diphtheria, and tuberculosis are on the rise (12). The countries' economic, social, and political environment forced millions of Venezuelans to escape their homes and migrate to neighboring countries. Most Venezuelans remain in Latin America (85%), traveling by foot to neighboring countries such as Colombia, Brazil, Ecuador, and Peru. In Colombia, one of 46 people in the country is a Venezuelan migrant; Colombia has welcomed over 1.7 million refugees and in March 2021, they declared a 10 year temporary protection status to Venezuelan migrants (10). Although Colombia has welcomed Venezuelans and left borders open, migrants still face structural and historical barriers that put them in competition with the unmet needs of the local population. In 2019, women made up almost 50% of the Venezuelan refugee population in Colombia (4).

The Importance of Access to Reproductive Services

Lack of access to reproductive health care is detrimental to the overall health of communities. Improving maternal health outcomes, ensuring access to hygienic products and contraceptive services, preventing and diagnosing STIs such as HIV/AIDS, decreasing teen pregnancies, and providing safe access to abortion can help reduce the overall burden of disease (13). Globally, pregnancy-related diseases and STI's accounts for one-third of the burden of disease among women of reproductive age and one-fifth for the overall population

(13). In areas with low coverage or barriers to access, women and girls are at a higher risk of unsafe methods of termination of pregnancy (such as clandestine abortion procedures) that can cause sepsis or even death, high rates of STIs, and unplanned pregnancies (13). Unwanted pregnancies and/or births can limit a women's options and cripple family well-being. Women who have unplanned pregnancies or poorly-timed pregnancies have overall lower mental and physical Health Related Quality of Life (HRQoL) scores compared to women with planned pregnancies (13)(14). Decreasing the number of teen pregnancies is key, as many studies have shown that pregnant teens, especially those that are low-income are less likely to finish high school; this in turn has a long-term effect on their economic opportunities and has shown to be related to an over-reliance on public assistance (15).

Numerous studies also show that access to contraception enables educational and employment opportunities and is linked to an increase in participation in the workforce (16). HIV/AIDS remains one of the top 5 diseases with highest DALY's globally (17). Access to these services will undoubtedly improve the livelihood of women and girls, but it has also been linked to improved nutrition, workforce participation, and maternal health outcomes. In a study by the World Bank, the authors found that improving access to reproductive services saves the government $12 per person in health and educational costs (18). Thus, it is a public health priority for women and girls to receive adequate access to reproductive health, not only for their overall wellbeing and health outcomes, but also for long-term economic benefits of their children and even communities a whole.

Access to Reproductive Health Care in Venezuela

The humanitarian crisis in Venezuela has severely deteriorated their public health system. The Venezuelan government decreased their investments in public health infrastructure, censored the epidemiological data they collected, and in general, lack

adequate disease control programs (19). The Venezuelan ministry of health did not publish official health reports from 2016-2019, and when they did, there were severe over calculations of the number of services available—making it very difficult to fully understand the scope of service available in the country (2). The Inter-American Commission of Human Rights (IAHCR) noted that the Maduro regime was imposing severe restrictions on information and statistics related to women's health and rights (5). IAHCR visited the border of Colombia and Venezuela to ask migrant women questions about their access to health services back in their country. They heard accounts of women who had to provide their own surgical instruments to hospitals to receive the care they required. Given the emigration of doctors from Venezuela, many hospitals were overburdened and did not have enough funds to give care to every woman. Thus, many pregnant women traveled by foot to Colombia to receive prenatal care. Maternal mortality rate increased by 66% during the onset of the humanitarian crisis (20). Additionally, IAHCR noted that there was an overall shortage of contraception in the country, 83.3-91.7% of pharmacies in Venezuela's largest cities did not have contraception available (5). Going to the store to purchase tampons or pads is no longer part of the everyday life of women in Venezuela. Two packs of pads can cost up to two thirds of a woman's minimum salary (21).

Only 77% of the population in Venezuela has access to running water, and more than 75% of these say that they have frequent disruptions. Access to clean water is crucial to a women's reproductive health needs (11). Sanitary napkins being increasingly out of reach for women in Venezuela means that they have to resort to non-traditional methods such as old pieces of cloth or unsanitary solutions that can lead to more complex health issues such as urinary tract infections, irritations, or even toxic shock syndrome (22). According to the GBD compare, HIV accounts for 1.15% of DALY's and Gynecological Disorders as well, compared to the United States where both diseases are far below 1% (23).

HIV infections in Venezuela rose by 24% from 2010-2014, and while antiretroviral therapy (ART) was widely available before ethe onset of the humanitarian crisis, ART—like many other medications—stockouts are common throughout the country, leaving people unprotected and at risk of infecting others (20).

Access to Reproductive Health in Emergency Situations

Women and girls are disproportionately affected during humanitarian crisis. Countries that are undergoing a humanitarian crisis are at a higher risk in the spread of HIV as individuals have a lack of service accessibility and gender-based violence increases (20). Over 500 women die in pregnancy-related complications every day, worldwide, in humanitarian settings. To offset these deaths, an inter-agency working group created the Minimum Initial Service Package (MISP) for Reproductive Health that outline strategies that help mitigate consequences of forced migration and poor access to sexual and reproductive health. MISP is used throughout the world to help evaluate whether migrants and refugees are receiving the care they need, want, and deserve. In an evaluation study on the MISP response to Syrian refugees in Lebanon, researchers found that although there were a large range of services offered to refugees, access to quality remained a challenge; studies reported pregnancy complications, poor antenatal care, limited use of contraception, and high levels of sexual violence (24). Even in countries like the United States where many refugees have access to governmental aid and are matched with a resettlement office, refugees are not routinely provided with information and referrals for SRH needs (25). Other studies found that economic crisis and hostile discourse limits access to care.

Access to Reproductive Health among Venezuelan Migrants in Colombia

Given its proximity and ease of access—many migrants travel to Colombia by foot—Colombia became the largest recipient of Venezuelan migrants, 48% of which are women and over 550 thousand of them are of reproductive age (26). Over 70% of migrant women are considered young adults (20-39 years old), almost 50% of them are single, and only 10% of them come with a secured job (27). Most migrants stay along the neighboring states such as Arauca, Cesar, La Guajira, and Norte de Santander; it is estimated that in 2018 that region hosted almost two-thirds of the migrating population (6). These migrants arrive in Colombia with unmet SRH needs looking to access services that they were unable to reach back in Venezuela. Given the transitory nature of Venezuelan's migration, it is important to note that women's access to services varies wildly depending on the region of the country where they are currently located. In a study done by ProFamilia, they identified the most urgent unmet needs as (6):

1. Access to contraceptive services
2. Treatment and information about Sexually Transmitted Infections
3. Safe abortion services and post-abortion care
4. Effective access to maternal and newborn health care services
5. Prevention of teenage pregnancy and youth friendly services

The study demonstrated that the cities in Colombia that are most densely populated with Venezuelan migrants (stated above) have, for the most part, the resources and human capacity to offer these services but a gap in access remains. Part of this is that in their focus groups, many women stated they did not know where to access those services and in general, there is an unmet demand for contraceptives. Migrant women aren't sure if the services offered are available to them or don't have the resources necessary to purchase them. Many humanitarian agencies such as UNICEF, IHCR, and ProFamilia are leading

the movement in providing women and girls with hygiene kits and in ProFamilia's case they offer voluntary termination of pregnancies and gynecological consultations. However, after these hygiene kits are used, women have trouble accessing services in areas far from the border (28). Thus, although humanitarian response is ongoing on the border, it doesn't reach the scale of need for the rest of the country. In 2017, Colombia reported over 13,000 new cases of HIV in the country, less than 1% of the cases came from individuals from other countries, but over 90% of imported cases came from Venezuelans (7). There have also been reports of an increase of gestational syphilis in the departments of Arauca and Norte de Santander (6). Weak coordinating systems in the country means that access to care is likely falling through the cracks, especially in more remote or informal settings. In early 2022, Colombia legalized abortion for up to 24 weeks gestation; before this new legislation, abortion in Colombia was decriminalized but required approval from a doctor. ProFamilia, Colombia's largest advocacy and SRH service provider, reported that in 2018, 71% of abortions provided to foreigners were to Venezuelan women.

Gaps in the literature

There are several gaps in the literature that limit the amount of information available. Information about access to reproductive healthcare in emergency situations is vast, but the Venezuelan migrant population is far different than the literature available. For starters, they do not reside in refugee camps as many of the populations discussed above were. They are *caminantes* that are crossing Colombia by foot and either plan to stay for a limited time or are just passing through Colombia to a different destination. This means access to services varies wildly depending on the type of migrant they are and what region of the country they are located. This also means that bordering states with Venezuela have been disproportionately impacted by the forced migration and have needs

that are different than in the rest of the country. Additionally, given that the massive exodus of Venezuelans occurred just a couple of years ago, and the COVID-19 pandemic was prioritized in the last couple of years, information about their access to reproductive health is not readily available. Lastly, Maduro's regime severely limited epidemiological data from being publicly available in Venezuela. The information about access to reproductive health care in Venezuela is limited given the availability of reliable information and the censorship going on through Maduros' regime. Thus, for this literature review, there was an over reliance on grey literature and first-hand accounts from news articles.

The purpose of this study is to understand the relationship between access to sexual and reproductive health services and the contextual factors that can affect that access. Contextual factors include social determinants of health such as location, secured housing, access to internet, adequate hygiene and sanitation stations, income, and education level. Access to sexual and reproductive health services is defined in two parts:

a. Access to menstrual hygiene products (pads, tampons, menstrual cups, or menstrual sponge).
b. Access to sexual and reproductive health services, this includes contraceptive care, STI testing, gynecological services, and/or prenatal care.

Methodology

Data set

The dataset used is publicly available information from the Regional Inter-Agency Coordination Platform for Refugees and Migrants from Venezuela (R4V). R4V was created by the International Organization for Migration and UNHCR that would help coordinate the response to the Venezuelan migrant crisis across Latin America and the Caribbean. The coordinating structure is made up of nine different organizations such as UNICEF, Save the Children, UNHCR, PAHO, etc., all of which work together to consolidate their data and centralize services as to not duplicate efforts. This specific dataset was created by combining household data from 37 organizations that contained information from over 170,000 households. The sample was chosen based on locations of interest from the following states in Colombia: Antioquia, Arauca, Atlántico, Bogota, Bolivar, Cesar, Cundinamarca, La Guajira, Nariño, Norte de Santander, Putomayo, Santander, and Valle del Cauca for a total of 3,112 households in the sampling frame. Households were called between June 2020 and August 2020 and surveyed on access to specific needs (i.e. income levels, access to food, clean water, and sanitation). To be eligible for the study, participants had to be over 18 years old and identify as a Venezuelan migrant.

Data Cleaning

A total of 318 variables were included in the database. Initial variables of interest were extrapolated to ensure that they had enough respondents and did not contain any errors. All variables were in Spanish, thus variable names with special character such as "*educación*" were invalid on SAS, so they had to be renamed. Other variables that were

included in the code book but had no data were removed from the database. An initial list of question of interest was gathered:

Age	What department is your home currently in?
Sex	**Have you needed access to SRH services?**
Age of head of household	**Were you able to access those SRH services?**
Sex of head of household	Number of women pregnant or lactating
Level of education	Sources of income
Ethnic group	Are you making minimum wage?
Year of Arrival	How many meals do you eat a day?
Total number of people over 12	Do you have health insurance?
Size of household	Have you experienced anxiety?
Sources of income	Have you experienced crying episodes?
Type of household	Have you experienced loss in sleep?
Households that reported a disability	Number of people that sleep in the same room
Access to internet	Do you have secured housing next month?
Type of toilet	**Which menstrual hygiene products do you have access to?**
Access to water	Have you experienced discrimination for being Venezuelan?
Steps between toilet and sink	Do you feel safe in your current neighborhood
Household needs	Do you have plans to return to Venezuela?

Many of the above questions had variables that were merged for analysis. For example, if a woman mentioned they had access to either tampons, pads, menstrual pads and/or menstrual cup, a new variable was created to state they had access to menstrual hygiene products. This new variable, and the other bolded statements, became the basis of some of the logistic regressions (more on this below). Other variables, such as type of toilet were condensed to describe adequate sanitation. Access to internet (regardless of modality) was turned into a yes or no statement, and levels of education were merged.

Procedures

The questionnaire collected only basic information about the respondent: age, sex, year of arrival, ethnicity, and whether they were the head of household were specific to the respondent. Initial descriptive analyses of respondents were run, mostly PROC FREQ and PROC UNIVARIATE to paint a full picture of the respondents of this survey.

Participants were asked household specific questions. We knew it was important to see the difference by gender in the responses they gave as this can help describe the population even further and can help break up differences in access to services. Data was desegregated by sex to analyze the differences and help us understand composition of households and their specific needs as well as how men and women respond to those needs differently.

Before the regression analysis, men were removed from the population because we know that men may not always have a clear picture of women's SRH needs. Two dependent variables were used for this analysis:

Variable 1: Access to menstrual hygiene products.
Variable 2: Access to sexual and reproductive health services.

"In the last 30 days have you, or someone in your household presented any of the following reproductive and sexual health needs?"

	SEXUAL HEALTH NEEDS
Q1	Contraceptive Care
Q2	Condoms or other actions that prevent and/or treat STIs and/or HIV
Q3	Prenatal or ante neonatal care
Q4	Care in gynecological services
Q5	Other

Only individuals who answered yes to any of the above were included in the analysis of Variable 2.

Regression Analysis

To start, statistical analysis was run to describe the population. All GIFMM participants were included in the initial descriptive analysis portion. Data were first analyzed by household to understand their make-up. After initial descriptive analysis of households were run, data were desegregated by sex to evaluate the difference between men and women. After another round of descriptive analysis desegregated by sex, any participant who identified as male or transgender were removed from further analysis to eliminate bias on SRH questions. Any women who stated they needed SRH services in the past 30 days was included in the analysis of SRH health service access. All women, except 17 who said it didn't apply, were included in the analysis of access to menstrual hygiene products. To statistically evaluate the effects of social contexts on access to SRH products and services, a binary logistic regression model was conducted. Two primary variables of consideration were access to SRH services and access to menstrual hygiene products. The binary regression was run multiple times with different exposure models: secured housing, access to internet, education level, minimum wage, adequate hygiene and sanitation stations, and department of residence. The data were analyzed using SAS. 9.3. Odds ratio with confidence levels of 95% were computed to ensure the validity of our model. We chose not to run a collinearity assessment as often, in humanitarian settings, the correlation from independent variables is not often present. For example, under non-humanitarian settings, education levels can often indicate how much income a person has, or access to a specific

health service. In humanitarian crisis, education isn't always correlated with access or income.

Ethical Considerations

This analysis was determined to be IRB-exempt because it is analysis of secondary, publicly available data. Information was de-identified prior to publication.

Limitations

There are a few limitations to the use of this dataset. As this is publicly available data, we cannot attest to the quality of the data, but we do assume it does not affect access to services. Additionally, this information is collected by several different organizations; it is possible that some household information may be duplicated. Additionally, participants included were only those individuals who had previous contact with one or more of the organizations involved. This introduces a bias to this study, as it is likely that participants in the sample are much more likely to have access to services than the general Venezuelan migrant population in Colombia. This means that individuals who may be in more dire situations, and have more urgent needs, are left out of this analysis. Furthermore, individuals were reached by phone, which also limits the number of people that have more dire needs, as those that do not have phone access are likely to have access to other services. Lastly, phone surveys have a respondent bias and researchers have no way of confirming the information being asked. For example, when asked how many steps away the hand washing station was from the bathroom, researchers have no real way of confirming this information.

Results

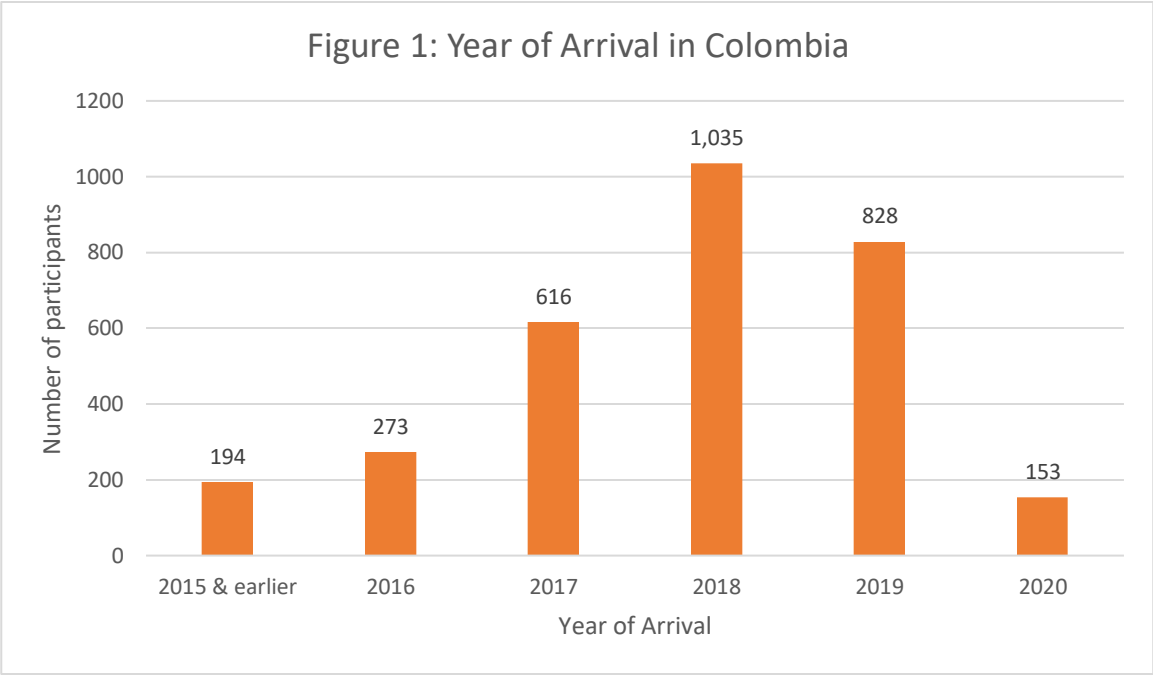
Demographic information and make-up of households

Of the 3,106 respondents, 79% identified as female and 21% as male, .019% (6 individuals) identified as transgender. Individuals ranged in ages from 18 to 84 with the mean age being 33 for women and 36 for men. As seen in Table 1, 85% of the participants identified themselves as the head of households. There is a high proportion of female heads of household, with 66% of the respondents identifying women as the head of household (Table 2). Most of the population, 90%, does not identify with an ethnic group, but of the 303 respondents that stated their household belonged to an ethnic group, 74% identified as Guajiros/Wayuu and the remaining 26% as other. As shown in Figure 1, a large proportion of the population (~79%) arrived in Colombia between 2017 and 2019. The number of arrivals jumped significantly from 2017 to 2018—the height of the humanitarian crisis—and has been decreasing since.

Table 1: Demographic Information of Survey Participants		
Characteristic of Respondents	**mean ± sd**	**n (%)**
Age		
Female	33.26 ± 10.29	
Male	35.57 ± 11.04	
Gender		
Female		2,464 (79.18%)
Male		642 (20.63%)
Transgender		6 (0.19%)
Ethnic Group		
None		2,810 (90.27%)
Guajiros/Wayuu		223 (7.16%)
Other		80 (2.57%)

Table 2: Household Demographics & Characteristics		
Household Demographics	**mean ± sd**	**n (%)**

Gender of head of household		
Female		2,076 (66.71%)
Male		936 (30.08%)
Make up of household		
Migrant		2,241 (71.01%)
Mixed (Colombian & Venezuelan)		871 (27.99%)
Size of household		
All members	4.75 ± 2.05	
Over 12 years old	3.09 ± 1.52	
Number of people that sleep in the same room	4.61 ± 1.52	
Number of people lactating		
None		1,340 (75.19%)
1		730 (23.46%)
2 or more		38 (1.18%)
Households who reported a disability		349 (11.21%)
Number of people working or looking for a job	1.96 ± 1.22	
Number of people in the house with insurance		
None		2,358 (75.75%)
Subsidized		596 (19.14%)
Through employment		97 (3.12%)
Special		62 (2%)
Number of people that reported the following mental health symptoms		
Anxiety		739 (23.75%)
Crying episodes		511 (16.42%)
Loss of sleep		(27.41%)
Secured housing next month		
Yes		1,891 (60.76%)
No		779 (25.03%)
I'm not sure		442 (14.20%)
Type of household		
Renting		2,521 (81.01%)
Illegitimate possession and/or squatting		213 (6.85%)
Family or friends		175 (5.6%)
Owner, house is fully paid		84 (2.70%)
Hotel, hostel, or daily payment		64 (2.05%)
Owner, currently paying		24 (0.77%)
Living in the streets		4 (0.13%)



The majority of households consisted of only Venezuelan migrants, but almost 30% identified as mixed, which means they were both Colombian and Venezuelan. The majority (81%) of the population is living in a house they are renting, but 7% of the population identified their household type as "*posesion sin titulo o usufructo"* which can translate to "possession without a title or squatting." This mean it's possible that almost 7% of the respondents are living in informal settings. Other types of households can be seen in Table 2. On average, households were made up of about four or five people, in which three household members were over the age of 12. Average age of household members is 22, this is younger than the average age of each respondent. The survey does not state how many children per parent, nor does it ask whether the person is married and/or if their spouse is in Colombia with them. Almost two people per home were reported to either be working or in search of work. Anywhere between four to five people sleep in the same room. Eleven percent of households reported having at least one member of the household with disabilities which included difficulty seeing, hearing, walking, memory loss, inability to

dress themselves and/or communicate. Participants were also asked a series of mental health questions such as whether someone in their home had experienced anxiety, crying episodes, or loss of sleep in the past 7 days; almost 30% of the population said yes to the above. Only 60% of the population reported having secured housing next month, and 75% stated no one in the household was affiliated with the Colombian health insurance.

Descriptive Analysis of Survey Respondents by Gender

Table 3 shows a breakdown of the descriptive analysis disaggregated by gender. When asked what the three main sources of income were, both men and women stated the same top three: employment, assistance (from government, nonprofits, etc.), and community support (family, friends, and neighbors). However, 80% of men mentioned employment as a main source of income, compared to 66% of women. Additionally, women more frequently reported receiving community support (16%) compared to men (12%). When asked if they were making more or less than the minimum wage, the majority of men (78%) and women (80%) stated they earn *less* than the Colombian minimum wage. Education levels were standard among men and women, with the largest category being individuals who completed high school, 35% and 33%, respectively. Women more often reported having no education (2%) compared to men (0.78%), and a greater number of men reported higher education by a small margin (less than 1% difference). When asked how many meals a day their household has, men and women had similar answers, 58% and 59%%, respectively, stated they had on average, two meals a day. Less than 1% of both men and women responded to having less than 1 meal. This was interesting because when asked what the top three household needs are, 86% of women, and 83% of men stated food as a priority. Lasty, 45% of women and 40% of men reported experiencing discrimination for being Venezuelan.

Access to services in Colombia are highly dependent on location. The majority of participants are still residing in bordering departments with Venezuela. For example, almost 20% of the population reported living in Norte de Santander. Figure 2 demonstrates that Norte de Santander is the only department (colored deep red) that currently hosts over 500 of the participants. Neighboring departments like Arauca, La Guajira, and Cesar are also home to a large number of participants. Antioquia is the only department in the middle of the country hosting a significant portion of the population (10% of women, and 15% of men). It would have been interesting to see where in these departments people are residing, whether they are in capital cities like Medellin in Antioquia, or in more rural areas. Table 4 shows a breakdown of where the participants are residing by gender.

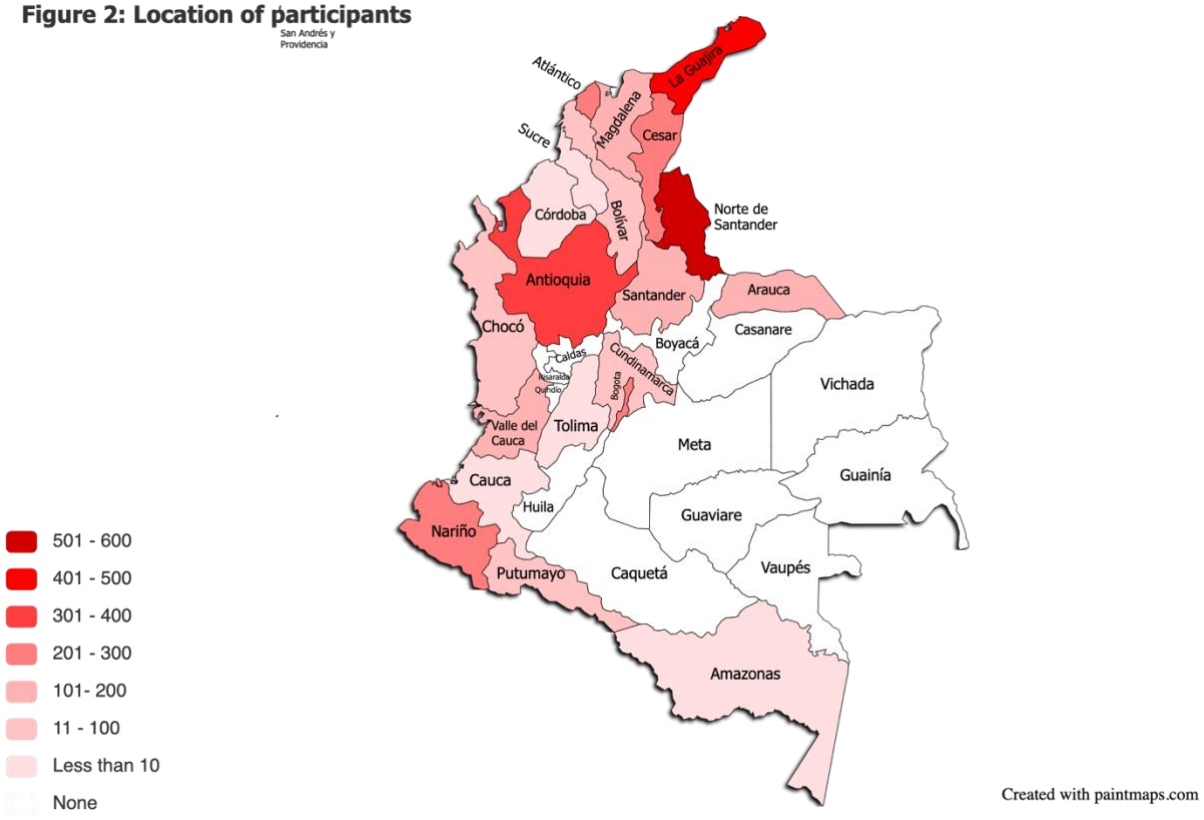
Table 3: Descriptive Analysis of Survey Participants by Gender		
	Female *N= 2,549*	**Male** *N = 642*
Variables	n (%)	n (%)
Head of households	2,071 (84.05%)	615 (95.79%)
Sources of income		
Employment	2,051 (65.91%)	517 (80.53%)
Assistance (gov't, nonprofits, etc)	438 (14.07%	108 (16.82%)
Community support (family, friends, etc)	402 (16.31%)	75 (11.68%)
Minimum Wage		
Less than the minimum wage	1,832 (80.28%)	471 (78.37%)
More than the minimum wage	450 (19.72%)	130 (21.63%)
Education level		
None	55 (2.24%)	5 (0.78%)
Primary School	300 (12.20%)	112 (17.45%)
Some high school	675 (27.45%)	162 (25.23%)
Complete high school	865 (35.18%)	210 (32.71%)
Higher education	564 (22.94%)	153 (23.83%)
Number of meals per day		
Less than 1	17 (0.69%)	3 (0.47%)
1	125 (5.07%)	32 (1.03%)
2	1,453 (58.97%)	371 (57.59%)
3	869 (35.27%)	236 (36.76%)
Safety		
Experienced discrimination	1,111 (45.09%)	260 (40.50%)
Does not feel safe in neighborhood	511 (20.74%)	100 (15.58%)
Needed access to medical services	1,093 (42.88%)	247 (38.47%)

Accessed medical care	552 (50.50%)	108 (43.72%)
Unable to access medical care	541 (49.50%)	139 (56.28%)
Top 3 household needs		
Employment	1,071 (43.47%)	288 (44.86%)
Housing	1,691 (68.63%)	410 (63.86%)
Food	2,109 (85.59%)	534 (83.18%)

Table 4: Location of Participants by Gender by Department

Location	Women n(%)	Men n(%)
Amazonas		1 (.16)
Antioquia	253 (10.27)	98 (15.26)
Arauca	152 (6.17)	39 (6.07)
Atlántico	217 (8.81)	34 (5.45)
Bogota, D.C.	195 (7.91)	66 (10.28)
Bolivar	69 (2.80)	9 (1.40)
Cauca		1 (.16)
Cesar	217 (8.81)	38 (5.92)
Choco	9 (.37)	4 (.62)
Cundinamarca	40 (1.62)	7 (1.09)
Córdoba	5 (.20)	2 (.31)
Guainía	1 (.04	
La Guajira	327 (13.27)	91 (14.17)
Magdalena	112 (4.55)	44 (6.85)
Nariño	193 (7.83)	31 (4.83)
Norte de Santander	444 (18.02)	118 (18.38)
Putumayo	24 (.97)	7 (1.09)
Santander	117 (4.75)	19 (2.96)
Sucre	2 (.08)	
Tolima	3 (.12)	1 (.16)
Valle del Cauca	84 (3.41)	31 (4.83)

Figure 2: Location of participants



Characteristics of Water, Sanitation & Hygiene (WASH) in households

Table 5 paints a picture of what WASH stations look like in these homes. For starters, participants were asked which toilet best described the one they used in their homes: toilet connected to a sewage system, toilet connected to septic tank, a toilet without a connection, latrine, open defecation near water, or no access. Toilets connected to a sewage system or septic tank were considered "adequate access;" toilets that were not connected or a latrine were considered "inadequate access" and open defecation near water and "none" were considered "no access." The majority of the population (90%) reported having adequate access, and 58% reported having potable water when they need it. 10% of the population stated they don't have a place to wash their hands with clean water but do have access to untreated water when they need it. Other participants mentioned having

intermittent access to potable water, or untreated water, and only 1.61% of participants stated not having any water at all. Ninety four percent stated they washed they hands with water and soap, and about 80% of the population stated that their toilet and hand washing stations were less than 10 steps apart. For the most part, the population has adequate access to WASH and did not mention sanitation or water as one of their priority needs.

Table 5: Description of Water, Sanitation & Hygiene (WASH) in Households		
	# of households	Percent (%)
Sanitation services		
Adequate	2,815	90.46
Inadequate	86	2.76
None	211	6.78
Access to hand washing station		
I don't have water	50	1.61
No, but I have access to potable water when I need it	231	7.42
No, but I have access to untreated water when I need it	320	10.28
Yes, with potable water when I need it	1,800	57.84
Yes, with intermittent access to potable water	70	2.25
Yes, with untreated water when I need it	452	14.52
Yes, with intermittent access to untreated water	129	4.15
Hand washing routine		
Water and soap	2,927	94.06
Just water	110	3.53
Antibacterial gel	59	1.90
Other	16	.51
Steps between toilet and handwashing station		
5 or less	1,894	60.86
Between 5 and 10	610	19.60
10 or more	308	9.90
No handwashing station	300	9.64

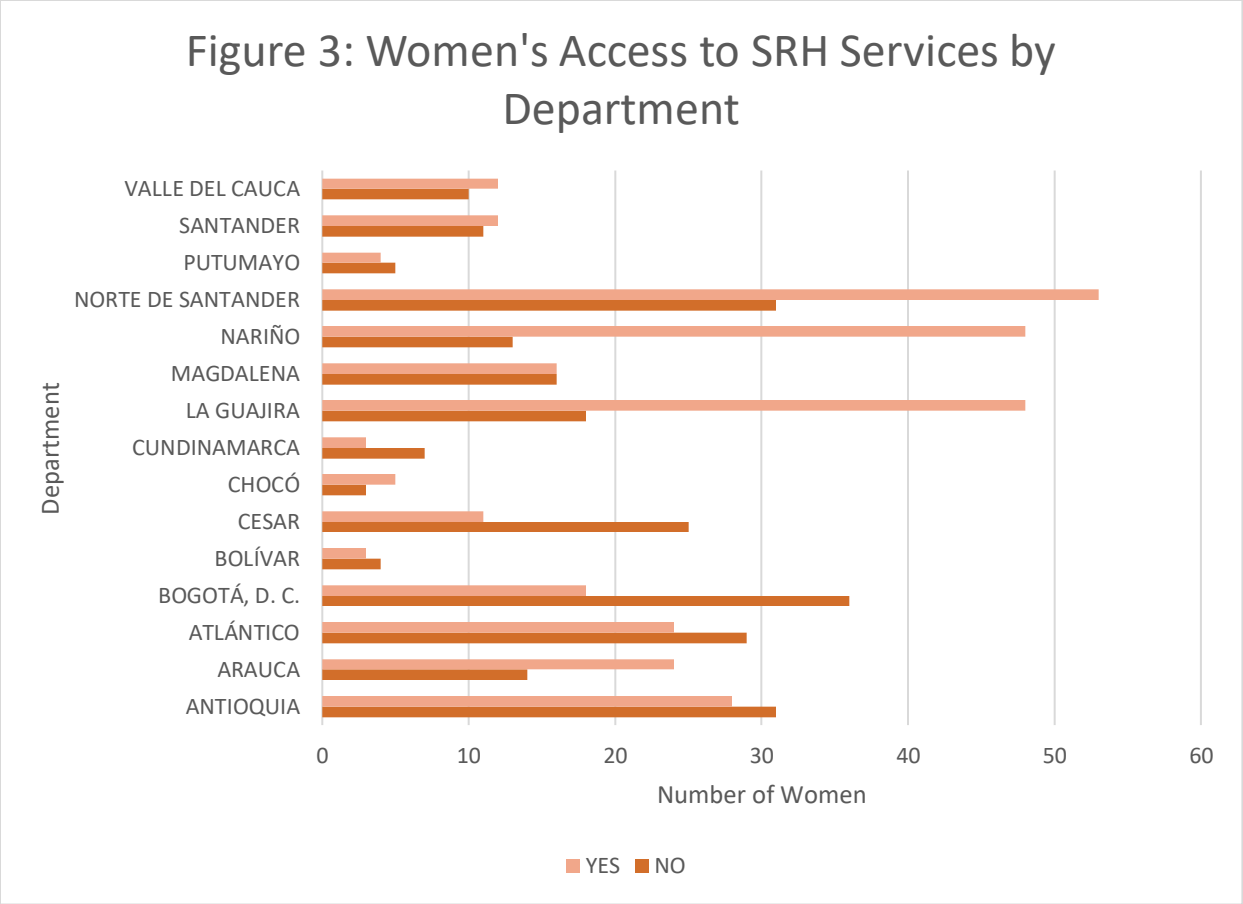
Access to Sexual and Reproductive Health Services

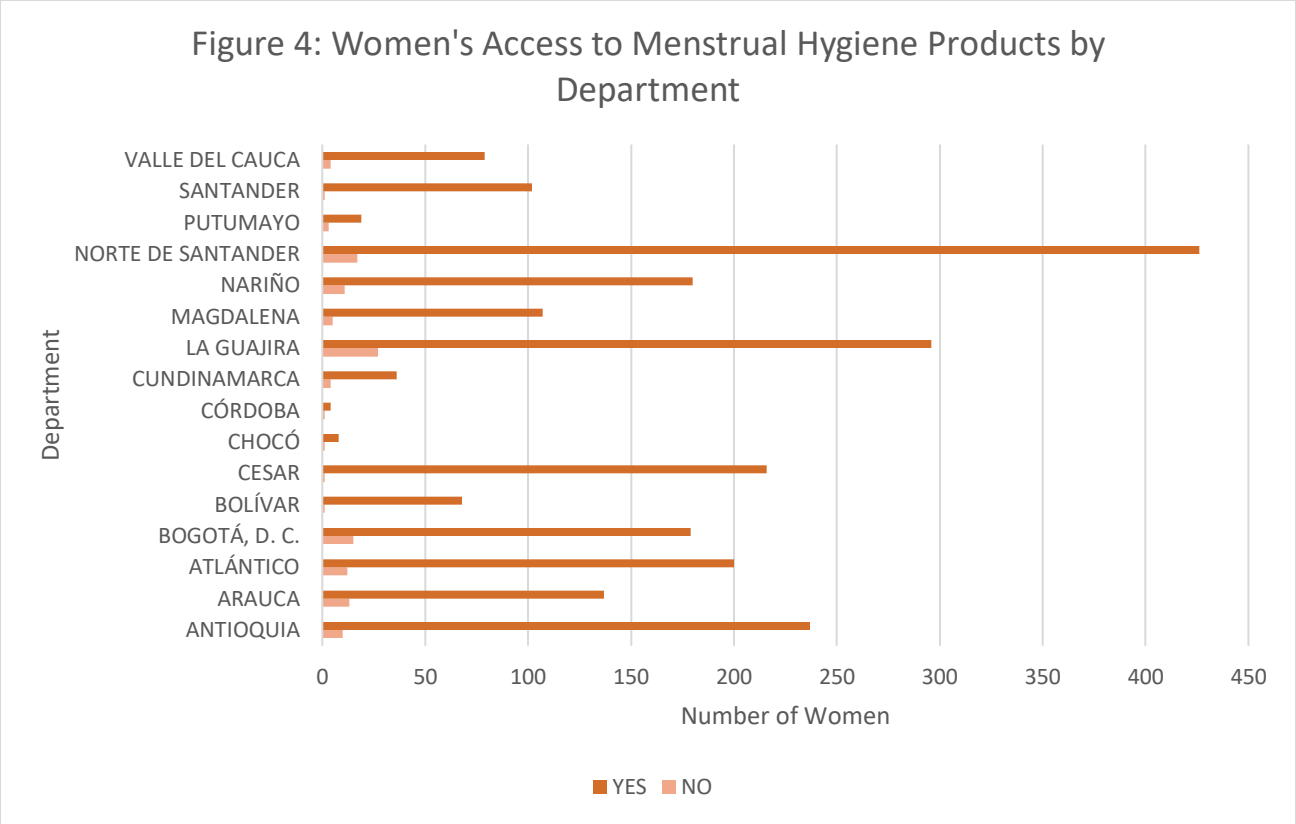
Table 6 demonstrates women's access to different menstrual health products. This demonstrates that a large proportion of women (84%) have access to at least one menstrual hygiene product; among Venezuelan migrants it seems that pads are by far the most accessed menstrual hygiene product. A total of 577 (23% of all female respondents) women needed access to at least one SRH service, which included access to contraceptives, condoms, pregnancy-related services, gynecological services, and/or other. Out of 577 who reported a need to access SRH services, only 55% were able to access them.

Six respondents identified as transgender, out of those six, two individuals stated they used pads while four stated they had no access. Out of the six respondents who identified as transgender, three of them stated they needed access contraceptive or other STI/HIV related services, but only two of them were able to access. This means that 66% of the transgender population did not have access to SRH services of any kind.

Table 6: Women's Access to SRH Services		
SRH Service	**Women (n)**	**Women (%)**
By Menstrual Hygiene Products		
Pads	2,080 (84.42%)	84.42%
Tampons	41 (1.66%)	1.66%
Menstrual Cup	5 (0.20%)	0.20%
Menstrual Sponge	4 (0.15%)	0.15%
No Access	340 (13.96%)	13.96%
Access to SRH Services		
Needed access to SRH services	577 (22.63%)	22.63%
Received access to those services	319 (55.29%)	55.29%
Which SRH Service was needed		
Contraceptives	200 (8.12%)	8.12%
Condoms and/or other STI/HIV related services	69 (2.80%)	2.80%
Pregnancy-related services	157 (6.37%)	6.37%
Gynecological Services	280 (11.36%)	11.36%
Other	12 (0.50%)	0.50%

In figures 3 and 4 we break up access to SRH services by department in Colombia. In Figure 3, we see that the proportion of women who report having most access are located in La Guajira, where almost 80% of Venezuelan women can successfully access SRH services. In contrast, almost 40% of the women living in Bogota report having difficulty accessing SRH services. In figure 4, we see that for the most part, women throughout Colombia—regardless of which department they are currently living in—have access to menstrual hygiene products.





Regression Analysis

Initial logistic regressions were run to determine if year of arrival and education level were associated with access to SRH services. No association was found between the year a person arrived in Colombia and their access to SRH services (see table 7 which outlines odds ratios with corresponding confidence intervals).

A logistic model was also created to determine whether education level is associated with access to SRH services. No association was found between education level and access to SRH services, however, some statistical significance was found between education level and access to menstrual hygiene products. The model compared those individuals who had primary school education to those with more years of education. In this particular case, only some high school and complete high school were linked to access to menstrual products. The odds of not having access to menstrual hygiene products was .59 times higher for those

individuals who completed high school compared to those who only have primary school education

Table 7: Binary Logistic Regression of Access to SRH Services by Year of Arrival						
	Women reported no access to menstrual products			Women reported no access to SRH services		
	N	OR	95%, CI	N	OR	95, CI
2016	33	0.98	0.55, 1.74	23	0.56	0.18, 1.75
2017	52	0.61	0.36, 1.03	76	0.72	0.26, 2.00
2018	118	0.86	0.53, 1.39	107	0.57	0.21, 1.56
2019	95	0.82	0.50, 1.33	86	0.47	0.17, 1.29
2020	18	0.91	0.47, 1.76	14	0.54	0.16, 1.86

Table 8: Binary Logistic Regression of Access to SRH Services by Education Level						
	Women reported no access to menstrual products			Women reported no access to SRH services		
	N	OR	95%, CI	N	OR	95, CI
Primary School	57	1.46	0.81, 2.63	41	1.61	0.77, 3.36
Some high school	101	0.75	0.53, 1.07	84	1.04	0.55, 1.84
Complete high school	**105**	**0.59**	**0.42, 0.85**	110	0.63	0.36, 1.11
Higher education	67	0.58	0.40, 1.86	82	0.69	0.38, 1.23

In Table 9, we report different contextual factors that the literature has told us were linked to increased access. This includes secured housing, access to the internet, income levels higher than the minimum wage, insurance, and the adequacy of their sanitation stations. We created a model that would determine the association between those contextual factors and an individual's access to SRH services including menstrual hygiene products.

Table 9: Binary Logistic Regression of Access to SRH Services by Contextual Factors						
	Women reported no access to menstrual products			Women reported no access to SRH services		
	N	OR	95%, CI	N	OR	95, CI
Secured housing next month	**622**	**1.79**	**1.37, 2.4**	**85**	**1.55**	**1.07, 2.26**
Internet Access	164	2.41	1.91, 3.04	173	0.84	0.59, 1.19
Minimum Wage	**283**	**1.82**	**1.27, 2.57**	199	1.28	0.84, 1.97
Insurance*	221	<0.001	-	154	1.07	0.71, 1.61
Sanitation Stations	28	0.53	0.30, 0.91	11	8.40	0.87, 8.4

Secured housing was the only variable in our analysis of contextual factors that showed statistical significance for both access to menstrual products and SRH services. If you do not have secure housing, the odds of not having access to menstrual products or SRH services are 1.79 and 1.55 times higher compared to those individuals who have secure housing. With confidence intervals that cross the null of 1, and a p value larger than .05, there is not a statistically significant difference between those who have access to the internet and do not in terms of their access to SRH services or menstrual hygiene products. The odds of not having access to menstrual hygiene products is 1.82 times higher for women who make less than the minimum wage, compared to those who earn more. Minimum wage had no statistical significance with access to SRH services. There was no statistical significance between insurance and access to SRH services or menstrual hygiene products. If respondents did not have adequate sanitation stations the odds of them not having access to menstrual hygiene products was 0.53 times higher when compared to women who had adequate sanitation stations. There was no statistical significance between adequate sanitation stations and access to SRH services.

Finally, given the differences in access by department (see Figures 1 and 2), we decided to run a regression model to determine whether there was an association between location and access to SRH services including menstrual hygiene products. In Table 10, only those departments with statistical significance are shown. Given that the majority of women in La Guajira reported having access to SRH services, we used La Guajira as our reference for comparison. Due to the small number of participants (less than five) that reported not having access to menstrual products in Santander, the results of the regression were omitted.

Table 10: Binary Logistic Regression of Access to SRH Services by Department compared to La Guajira						
	Women reported no access to menstrual products			Women reported no access to SRH services		
	N	OR	95%, CI	N	OR	95, CI
Antioquia	22	0.51	0.30, 0.86	28	0.32	0.15, 0.69
Atlántico	37	1.06	0.67, 1.68	26	0.28	0.13, 0.60
Bogota, DC	37	1.23	0.77, 1.95	19	0.18	0.08, 0.40
Cesar	36	1.03	0.65, 1.63	26	0.16	0.06, 0.37
Magdalena	12	0.62	0.32, 1.21	19	0.40	0.17, 0.94
Nariño	19	0.57	0.33, 0.98	48	1.23	0.54, 2.80
Santander	4	-	-	12	0.31	0.12, 0.80

Individuals living in Antioquia were .51 times more likely to not have access to menstrual hygiene products, and .32 times more likely to not have access to SRH services compared to those who live in La Guajira. The odds of not having access to menstrual hygiene products were 1.23 times higher in Bogota compared to the women who reside in La Guajira.

Discussion

This study utilizes a quantitative approach to examine the contexts behind Venezuelan migrants' access to sexual and reproductive health services in Colombia. This secondary analysis using the needs assessment data gathered by R4V was used to determine which social and economic factors were associated with failure to access SRH services in their current region. Social and economic factors included education, location, secured housing, insurance, date of arrival in Colombia, income level, internet access, and adequacy of their sanitation stations. Our analysis utilized the questions from the R4V needs assessment conducted in June of 2020 to understand the needs of the migrant population and how they are related to women's access to reproductive health. Access to SRH services was defined in two parts, the first is sexual and reproductive health which is the ability to access sexual and reproductive health services which include gynecological services, STI/HIV related services, pregnancy and neo-natal services, and/or access to contraception. The second is access to menstrual hygiene products which include tampons, pads, menstrual cups, and/or sponges. This provides an opportunity to highlight the sexual and reproductive health needs of Venezuelan women that can be informed by other contextual factors. There were large gaps between the need for SRH services and the ability to access those services. For instance, out of the 577 women that stated they needed access to SRH, only 55% of them were able to access those services.

Make-up of households

Findings from the secondary analysis of the 2020 needs assessment by R4V demonstrates that a significant majority of the respondents (80%) were women, and the majority of them were also heads of households. Women in this sample size make up a

much larger majority than the rest of the Venezuelan migrant population where only 48% of migrants identify as women (27). It is possible that the reason why women made up the large majority of respondents is because women are more likely to respond to surveys than men (29). The age range, majority of women are around somewhere between 23-49, is consistent with other evaluations of Venezuelans in Colombia (6). Water, sanitation, and hygiene was adequate among the respondents, where over 90% of them reported having adequate sanitation services and access to clean water. This was consistent later on in the survey as well, when the majority of individuals did not name water or sanitation as one of the three priority needs in their household. The top three priority needs were employment, housing, and food.

Insecure housing and the risk of inaccessibility

Overall, we found that many contextual factors can have an association with access to SRH services but the factor that posed the highest risk for inaccessibility of both health services and menstrual hygiene products is insecure housing. Housing, for many refugees, is considered an essential step on the path to full integration in their host country (30). Venezuelans in Colombia—who often rely on the informal economy for food and shelter—are forced to choose between basic needs like housing and nutrition or their SRH needs. Over 25% of the sample population did not have a home secured next month. This means that participants were likely more concerned with finding a home than they were with having access to SRH services. The GIFMM study was also conducted in June of 2020, what many consider the height of the COVID pandemic in Colombia, and when COVID restriction were the most stringent. The lockdowns and mobility restrictions in 2020 led to a major recession in Colombia (31). Venezuelan migrants in Colombia are considered

irregular migrants, as many of them don't have proper documentation, or have informal jobs (i.e., selling goods in the streets, or other jobs in the informal economy), making integration for this population already difficult but also exasperated by the COVID-19 pandemic. This also falls in line with an increased risk of inaccessibility of menstrual hygiene products (1.82 times) when an individual makes less than the minimum wage compared to those individuals that make more. Without the inability to work, the risk of insecure housing was likely more prominent and although eviction moratoriums were in place throughout the country (81% of respondent stated they were renting a home), there was no legislation protecting them from forceful removal (32). This likely played a role into why women who did not have secured housing were almost two times more likely to not have access to menstrual hygiene products and one and a half times more likely to not be able to access sexual and reproductive health services.

Location and access to SRH

Colombia is a geographically diverse country where access to services is highly dependent on where in the country a person is located. The capital, Bogota, is the largest city in the country that accounts for 25% of the Colombian GDP and one where individuals often have access to a large number of social services (33) (34). It was surprising that participants in Bogota were less likely to have access to SRH services, especially when compared to places such as La Guajira, and Santander. La Guajira is one of the poorest departments in the country, whose population—many of which identify as indigenous—live in extreme poverty (35). The majority of people in this region have low levels of education and poor access to clean water, in addition to inadequate access to medical services (36). As seen in Figure 2, La Guajira is one of the bordering departments between Venezuela and

Colombia. In this case, it's possible that individuals have a higher access in places like La Guajira and Santander precisely because they are near the border. Organizations like UNHCR, UNICEF, and Doctors Without Borders are operating relief services that Venezuelans can access. In Maicao, La Guajira, UNHCR set up its first border tent camp in 2019 to help aid migrants walking through the border of Venezuela and into Colombia (37). Even though Maicao is in the dessert, hundreds of miles away from the closest city, it is possible that migrants in Maicao have increased access to SRH services because of the aid provided by organizations like UNHCR. Normally, living in Maicao would mean incredibly limited access to any service.

Other contextual factors

Our analysis indicated that there was no association between year of arrival and access to SRH services. This was surprising, especially because at the time of the survey individuals that reported the date of arrival as 2020 had been in Colombia for just a couple of months. Looking at the data, it's probable that because these individuals all had previous contact with the NGO's, they were more familiar with access to services than they otherwise would be. Education level also played a much lower role in access to SRH services than we anticipated. However, this is the case for many refugees, who regardless of education levels, face high barriers to unemployment and face increased scrutiny and discrimination (38). Forty-five percent of Venezuelan women experienced discrimination and 20% did not feel safe in their neighborhoods. Studies have shown that highly educated refugees are often underemployed in their host country; our study also validates this as even though over 22% of the women in this study had a higher education degree, 80% of respondents made less than the minimum wage. Nevertheless, it is possible that

individuals that have higher income levels were not reached by these organizations because they didn't need their services.

Limitations

This study is subject to limitations that should be considered when interpreting results. First, respondents were those individuals who had previous contact with the organizations involved. This introduces a bias in our data as it means that these individuals have had access to certain services and are aware of who to contact in the case that additional needs arise. This also means that this specific population may be quite different than the rest of the Venezuelan migrant population that may not be aware of some of the services these organizations offer. Needs in the overall population of migrants in Colombia likely look very different than the one analyzed in this study. This study took one step toward understanding what the specific sexual and reproductive health needs in this population were, but a much larger sample that includes individuals without previous known access is needed for expanded analysis. Survey results are based on self-reported data, thus could be subject to desirability or reporting bias. Additionally, this dataset contained no information on marital status, and the number of children per parent. Although it was reported the number of individuals over 12, and the number of people in the household, it's difficult to gauge whether these houses are intergenerational homes, or how those needs differ between couples versus single women. Additionally, data from the R4V was a survey conducted in the height of the COVID-19 pandemic where needs were unique and it is possible that those needs have changed given the loosening of some of the restrictions. Lastly, information about the department where people are living was an important aspect of this study, but access to services may change depending on where in

the department they live. Rural versus urban living information would have been a helpful way to continue to analyze the contextual factors that are associated with SRH access.

Public Health Implications and Recommendations

Research on Venezuelan migrants in Colombia is fairly new, but research on the importance of sexual and reproductive health services and increase in overall health has been aptly reported. Given the gap in services that Venezuelan women are currently experiencing, specifically their access to sexual and reproductive health, it is important that the Colombian government and other NGOs providing aid in Colombia consider next steps to mitigate those needs. Organizations are doing a good job at providing services in border areas, but they must expand their reach to individuals who are living in the interior of the country. All future interventions and needs assessments should take into consideration that most migrants will travel to larger cities, like Bogota, where services may be harder to access. Thus, providing individuals with resources to access those services when they arrive to larger cities is key in their full integration in Colombia.

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