ABSTRACT

Program Evaluation and Exploratory Study of Reproductive Health Resources in India

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Young women living in rural India are an incredibly vulnerable population that lacks adequate reproductive healthcare resources. Their vulnerability is exacerbated by low education levels, young marriage ages, and high poverty rates. This results in poor health outcomes for mothers and babies. The goal of this thesis was to research the environment of reproductive health for women living in India to understand the context that a combative NGO program would have to fit within. I researched influencing factors such as legislation, religion, class division, geography, and education. Governmental resources implemented in public hospitals and through rural health workers are promising, but often they are inadequate, inaccessible, and expensive. I completed a program evaluation of current initiatives to see how NGO's attempt to resolve shortcomings in governmental care. With that foundation of research, I developed a program proposal to fill in the gaps of current governmental and non-governmental care with a goal of providing culturally competent services.

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PROGRAM EVALUATION AND EXPLORATORY STUDY OF REPRODUCTIVE HEALTH RESOURCES IN INDIA

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INTRODUCTION

International focus on promoting equal treatment of women is growing, especially in developing countries as evidenced by the United Nations' Sustainable Development Goal Five, "Achieve gender equality and empower all women and girls" (UN, 2016). One of the more specific targets of this goal is to, "Ensure universal access to sexual and reproductive health and reproductive rights" (UN, 2016). This shows that adequate access to reproductive health care is an area that requires focus and research in order to develop practical and evidence-based programs. Ideally, this international attention will encourage development of programs that utilize best practices and adequate knowledge of the target population to provide effective and necessary services. Comprehensive reproductive healthcare for women that is accessible, affordable, and safe is a fundamental step towards equal rights.

Despite international attention, poor reproductive health continues to be a problem for women living in India. Recognition that this is an important issue and identifying a target population are the first steps of working towards a solution. An adequate solution will utilize knowledge from two perspectives: first, universal understandings of reproductive healthcare, and second, local practices and culture held by the targeted population. Due to their level of vulnerability, women living in rural India were identified as the service population for this research.

This paper will discuss contributing factors on reproductive health perspectives for Indian women, which includes legislation, religion, class division, geography, and

education. This is a necessary step to understand the context in which a program must fit. The paper will then present current reproductive health programs available in India. These include government services and non-profit initiatives. This overview provides insight into the extent of services available and recognized gaps in care. This is also an important step in not putting resources towards creating a program that is redundant. Next, the paper will present a program evaluation of ten reproductive health initiatives by nongovernmental agencies. This detailed evaluation of existing initiatives assesses how organizations have identified necessary goals and use targeted objectives to reach them. This is helpful in utilizing evidence-based practices. This is a tactical step in learning what agencies are on the ground partnering with and providing services for communities.

With this foundation of research and understanding, I propose Project Rani, a hypothetical reproductive health initiative that will serve rural villages in Rajasthan. This project is a proposed solution to the poor outcomes of reproductive health by filling in the gap of poor access and lack of information. Through educational groups, case managements, and local health worker training, this project will target adolescent females, women, and men living in Rajasthan. The purpose of this thesis is to understand the contextual environment of reproductive health NGO's in India and the necessary considerations required to propose a solution

CHAPTER ONE

Implicating Factors on Reproductive Health for Indian Women

Factors such as legislation, religion, class division, geography, and education influence different beliefs about reproductive health. Researching these factors provides insight into the current and historic beliefs about sexual health practices and resources available to Indian women. Understanding these factors enables greater confidence in creating a strong foundation for a successful reproductive health program that effectively serves Indian women. Without conducting such research, a program would likely provide inadequate and unnecessary resources for target recipients. It also gives insight into possible strengths or barriers for developing a program in India that would not exist in other countries. It is important to recognize that India has an ancient and eventful history. India's extreme diversity creates varied perspectives on sexuality, but recognizing that diversity should further encourage effectiveness.

This topic of research is relevant and necessary for Indian women. Currently, momentum is moving forward in adjusting and improving women's rights and reproductive health legislature in India. There are now more women in the cabinet of ministers than ever before who are using their voices to advocate for other Indian women and influence policy change. However, there are still dangerously high amounts of sexual assault and violence against women alongside weak prosecution rates and light penalties for perpetrators (Xu, 2013). This is evidence of a culture that does not place high importance on protecting women or providing them justice. These cases have garnered

international protests and have sparked conversations about women's rights and safety. Another example is the low level of health care available to Indian women. The number of births that take place in institutions, private or public hospitals, as well as the amount of women who receive adequate prenatal and antenatal medical care is still below healthy levels (Kestetson, Cleland, Sloggert, & Ronsmans, 2010). These trends carry dangerous consequences for women and babies because complications leading to illness and death are greatly reduced in hospital settings where hygiene is controlled and life saving equipment is available. However, few high quality public medical facilities exit, and major barriers such as cost and access prevent women from seeking services (Kestetson et. al, 2010). This shows that women's protection and healthcare needs to become a political priority.

Legislation

A major factor that influence's women's reproductive rights is legislation surrounding sexual assault and domestic violence. This legislation often guides societal norms and influences stigmas and misconceptions. Indian laws and policies have not historically protected women or enabled equality between genders. Changes are being made, but there is still significant progress required in order to adequately protect women and increase their freedoms. A number of high profile rape cases in recent years have drawn close attention to the relevant legislation about violence against women and court actions in response to such cases. In one case, a woman accused a man of drugging her and then marrying her while she was intoxicated. He then sexually assaulted her and fled.

In the trial, the court ruled that because they were married, the assault was not considered a crime (Jeyarajasingham, 2014). Cases such as this one establish the precedent that marital rape and domestic violence are not crimes, but normal aspects of a marriage. It removes a woman's control over her body and gives it to her husband to either respect or violate. Although progress has been made to create laws that protect and empower women, there is still weak implementation and enforcement that renders the laws ineffective (Jeyarajasingham, 2014). Critics of Indian law cite the vague definitions and descriptions of certain criminal actions, such as rape and abuse, because they allow room for interpretation and even manipulation of charges. For example, severe sexual attacks can be deemed criminal assault on a woman with "intent to outrage her modesty," which has a lighter penalty that is rarely enforced (Xu, 2013). This history of weak prosecution has created an environment in which sexual assault and violence against women is met with complacency and silence (Xu, 2013). However, current political conditions indicate that important progress is being made. Prime Minister Modi's cabinet of ministers is currently made of 25% women, which is the largest percentage in Indian history (Jeyarajasingham, 2014).

Religion and Sexual Practices

Religion is a crucial factor due to its capacity to often shape views of sexuality and conception. The dominant religion in India is Hinduism, followed by Islam and Christianity. There are no universal perspectives on birth control usage in any of the religions. In each of the religions, the varying denominations hold specific views and

practices regarding sexual activity. However, these perspectives are greatly influenced by individual and family socioeconomic status, geographic location, and culture. It is also important to recognize that although an individual may belong to a certain faith, their personal views and practices regarding sex could be very different than what is traditionally accepted. In a national study of contraception usage by married couples, 59.9% of Hindu women, 46.7% of Muslim women, and 59.5% of women adhering to other religions used some form of contraception (Chaurasia, 2014). Regardless of religion, the most popular method of contraception in India is permanent sterilization. Within the context of religion, it is important to explore the restrictions or freedoms experienced by women regarding sexual practices, conception, and contraception.

Hinduism

Sexuality and Hinduism are deeply connected. Ancient Hindu texts, such as the Vedas, describe acceptable sexual practices, including polygamy, and prayers for fertility (Chakraborty & Thakurata, 2013). "The main theme here appears to be the expression of Indian attitude toward sex as a central and natural component of Indian psyche and life" (Chakraborty & Thakurata, 2013). However, this freedom came to a halt during the Colonial Era when the British condemned Hindu sexual practices because they were much more liberal than traditional European views of sex. Over time, Indian sexual practices became much more puritanical and private because of the European influence. The age of consent was also increased during the British occupation of India (Chakraborty & Thakurata, 2013). Under Hinduism, sex is typically reserved for married

couples as an act of reproduction and creation. Marriage is seen as a necessity and religious sacrament because men cannot reach the second life stage *Grihastha,* which is part of the Hindu *Ashrama* life stage system that allows one to reach Nirvana (Chakraborty & Thakurata, 2013). It is also impossible for Hindus to escape the pattern of reincarnation without male offspring, which places more importance on conception and reproduction. These beliefs encourage married couples to have children early in their marriage and continue to have children until at least one male is born. It also places responsibility on Hindu wives to bear a son because their husband's faith is dependent on it. There are specific nights, dependent on astral patterns and the woman's menstrual cycle, where sex is either encouraged for prosperous conception or forbidden (Chakraborty & Thakurata, 2013).

Islam

Similar to Hinduism, Islam has strict rules regarding sexual activity that primarily place choice within a man's rights and confine sex to within a marriage. Sex is strictly controlled to occur within the confines of marriage because it is intended to be an act of conception that contributes towards Allah's creation. Premarital sex, adultery, and homosexuality are all explicitly forbidden under Qur'an and Hadith law, which are two primary authorities in Islam (BBC, 2014). Also under Qur'an law, men are allowed to take multiple wives, but women are not allowed to have multiple husbands. Although the Qur'an does not mention contraceptive use, the Hadith, Muhammad's teachings, do. Under the Hadith, contraception through "*coitus interruptus*" is accepted by a majority of

Sunni and Shii Muslims. More modern methods such as the contraceptive pill and intra-uterine device are typically acceptable as well (Oxford Islamic Studies, n.d.).

Christianity

Christianity was brought to India by a variety of sources. Thomas the Apostle was one of the first to introduce Kerala Indians to Christianity. More recently, the Portuguese, Turkish, and Syrians occupied and migrated to India and brought their Christian faith with them (Mahajan, Pimple, Palsetia, Dave & De Sousa, 2013). Although they are a minority, Indian Christian communities exist all across India. Similar to other religions, Indian Christians typically only marry within the religion and often use arranged marriages between families. Indian Christianity follows the Bible, which states that sex should only occur within the confines of marriage. Marriage is seen as a covenant between a man and a woman that is a reflection of Christ's covenant with the church (Mahajan et. al. 2013). Although there is not the same pressure within Christian marriages to have sons, there is still a cultural preference for males over females which influences views of children. Due to the minority status of Indian Christians, little high quality research about marriage and family practices is available.

Class Division

The Indian population is divided into a system of classes, or castes. A caste is determined by birth and is an inescapable burden that determines access to privileges and resources, including schools and jobs. The caste system holds its foundation in ancient Hindu texts from between 1500 BC – 1000 BC (Vallabhaneni, 2015). Because the caste

system has divine support, it is strictly enforced by social rules and it is not easily broken. Although members of other religions may not recognize their own caste or the caste of others, they will likely be placed in one by others. The caste system began to weaken during British colonization, but every Indian citizen was assigned a caste label during a national census. The British then used the census to determine privileges and rights, such as ownership of property and professions. This placed new stock in the caste system and it has remained strong since the exodus of British colonizers (Vallabhaneni, 2015). Although there are some professions and resources reserved for members of lower castes, most benefits are exclusively for higher castes. Arranged marriages are typically kept within a caste. These factors make it almost impossible to escape a lower caste through professional achievement or by marriage. Discrimination based on one's caste is now illegal, but certain cultural and governmental factors unofficially maintain the caste system. Family names are traditionally tied to castes and remain a recognizable reminder of what caste a family belonged to. During elections, politicians will often attempt to rally and unite a specific caste, usually with a promise of protection or benefits. When this occurs, caste lines grow stronger and more defined. In recent years violence between castes has erupted because of political rallies (Agrawal, 2015). The national quota system unintentionally strengthens caste discrimination and animosity as it keeps track of systematically disadvantaged families and demographics and then reserves government jobs and university seats for them (Agrawal, 2015). This system is responsible for supporting many lower class individuals who historically only had jobs of cleaning toilets or other hard labor positions by enabling them to find jobs in other sectors. However, it

has also inspired resentment from people who do not benefit and in some areas, protests and civil unrest (Agrawal, 2015).

In *Playing with Fire*, a collection of autobiographical stories from seven Indian women, the women describe what it is like to live within the caste system. In cities, there is often too much crowding for castes to be truly separated, but in rural villages, such as the one where *Playing with Fire* takes place, caste separation is often more strictly enforced (Nagar & Anupamlata, 2006). The members of the lowest caste are often referred to as *dalits* or "untouchables." They are the poorest in society. One woman was raised a Dalit in her rural village and was not allowed to go to school or play with the other children because they belonged to a higher caste and she would make others dirty by association. She even suffered physical and verbal abuse at the hands of higher caste adults because of her lesser position. In lower castes and rural areas, women are less likely to be educated and are more likely to marry before they turn 18 (Patil et al, 2002). Greater education has a strong positive correlation with contraception usage and control over reproduction (Pillai and Gupta, 2006).

Geography and Economy

India is the second most populous country in the world with more than 1.3 billion residents (UN Data, 2016). A major problem Indians face is poverty, as one out of five Indians lives below the poverty line (World Bank, 2012). In India, the poverty line is defined as those earning 32 rupees or less for rural areas or spending 47 rupees or less in towns and cities (Singhl, 2014). In United States dollars, these values equate to 49 cents

and 72 cents, respectively. Due to the large population and the prevalence of poverty, the Indian government has a history of attempting population-controlling legislation. These policies have a history of being ineffective and even dangerous at times. For example, in the late 1960's and into the 1980's the Indian government encouraged women to get sterilized because it is a fairly inexpensive and permanent birth control method. They utilized cash incentives and national advertisement campaigns to garner large participant numbers (Singh, Ogollah, Ram & Pallikadavath, 2012). However, the sterilization facilities tended to be overcrowded and unsanitary, which created unsafe operation rooms. Sterilization, although an effective method of birth control, is not an effective economic tool to reduce poverty.

In India, more than three quarters of health spending comes from out-of-pocket, private sources rather than government or insurance funding, which creates great inequality in access to health care (Balaraian, Selcarai, & Subramanian, 2011). A lack of public funding removes formal health care as an option for many families. Another factor that severely limits the ability for some to access health care is location (Kestetson et. al, 2010). According to a study about Indian health care completed by Patil, Somasundaram and Goyal, "about 75% of health infrastructure, medical man power and other health resources are concentrated in urban areas where [only] 27% of the population live." (2002). Many members of lower castes, especially those who live in rural villages, may not have the ability to access health care because public transportation is limited and many families do not own a personal vehicle. Money is spent on food and living expenses and there is rarely any left over to spend on health or travel in order to access health

care[1]. Sexually transmitted diseases, including HIV/AIDs, are on the rise in rural areas where there is not effective treatment available (Patil, et. al. 2002). If there is no hospital or health clinic, victims of sexual assault may not receive the emergency medical treatment they require.

The lack of medical care in rural areas has dangerous implications on reproductive care and birth for women and babies because most women end up giving birth at home without a trained health care provider (Kestetson et. al, 2010). In a study of rural villages in Maharashtra state, 51% of births were done at home without a trained birth attendant present. Most women could not afford to stop working so they tended to continue working labor-intensive jobs late into the pregnancy. Additionally, only 30% of women had a postnatal medical appointment (Patil, et. al. 2002). The stillbirth rate and mother mortality rate are also higher in rural areas. Neonatal mortality rates are still very high in India. In 2010 there was a mortality rate of 32/1000 live births for the entire country (Upadhay, Chinnakali, Odukoya, Yaday, Sinha Rizwan, Silan, 2012). In rural areas, the mortality rate is higher at 42.5/1000 live births compared to the urban levels of 28.5/1000. Due to poor access to medical professionals, some turn towards untrained healthcare providers who may offer outdated or even dangerous advice (Upadhay et al, 2012). These numbers show that mortality rates are skewed towards rural areas and this is where attention should be placed to increase affordability and accessibility of adequate health care.

[1] When I spent time in Goa, India in 2016, an older woman was camped outside the public hospital for six weeks while she received treatment for a fractured arm. Her village did not have a clinic and she could not afford to travel between her village and the city where the government hospital was located or afford lodging in the city. Her only option was to sleep on a blanket under a plastic tarp by the hospital wall.

Education

In India, education is primarily offered through government-funded public schools. These schools are often used as a base for government social service initiatives regarding healthcare and nutrition. School is also where many members of the population are introduced to reproductive health. Sexual education has the ability to shape how a society views sexual health and reproductive practices. Limited or incorrect knowledge often leads to stigmas that can have dangerous consequences for women and their health. For example, according to many cultural traditions in India, menstruating women are considered unclean (Thirunavukarasu & Simkiss, 2013). Certain actions that are facets of daily life, including bathing, going to school, and eating some foods are limited while they menstruate. Limited bathing increases susceptibility to reproductive tract infections and can result in infertility (Thirunavukarasu & Simkiss, 2013). Women may also be less likely to seek medical attention for menstrual symptoms that are indicative of more serious medical conditions because they have incomplete knowledge about what is normal and healthy. Furthermore, women may live in a state of fear because they are embarrassed to seek medical attention for a potentially dangerous symptom or because they do not have access to care.

Currently, Indian public schools do not have a comprehensive curriculum for sexual education. Teaching about reproduction is typically only taught in optional biology lessons for older students and sexual content is avoided (Thirunavukarasu & Simkiss, 2013). If information is covered, it is often taught too late for the students who need it. The legal age for marriage in India is 18, but 60% of women are already married by then and typically drop out of school, therefore missing useful information about safe

sexual practices. For girls married before they are 14, the average age of their first pregnancy is 16 (Thirunavukarasu & Simkiss, 2013). This means that the target audience for information about reproduction, safe sexual practices, and puberty may not be attending the schools. Younger married girls are typically from a poorer and less educated background, which further increases the chance that they have less knowledge about reproductive health. These factors create a pattern where less educated women are passing on incorrect knowledge to their daughters and any misinformation is not corrected.

In New Delhi, an NGO called Talking About Reproductive and Sexual Health Issues (TARSHI) runs a confidential phone line that answers questions about sexuality, physiology, counseling, and provides referrals for reproductive health issues (Ismail, Shajahan, Rao & Wylie, 2015). TARSHI has discovered, due to their user base with 70% of callers under the age of 30, that young people lack an accurate and comprehensive source for reproductive and sexual health knowledge. The majority of TARSHI callers are married, which demonstrates that people may not understand the importance of having correct knowledge until they begin to start a family. Due to call patterns and common topics of questions, TASHI asserts that there is a general lack of knowledge about, "puberty and the body, conception and contraception, healthy relationships and communication, gender identity, body image, and HIV prevention" (Ismail, Shajahan, Rao & Wylie, 2015). This can lead to the argument that the current sexual health curriculum utilized by Indian public schools does not adequately address these subjects.

Conclusion

It is important to understand the major factors influencing reproductive health practices in India for programs to be created that effectively serve its target recipients and provides necessary services. Without this understanding, services may be redundant, inaccessible, or unnecessary. Legislation, religion, class division, geography, and education the major factors that shape sexual beliefs and practices. Although this chapter discussed these factors in detail, this is a broad area of research. Additionally, India has an incredibly diverse population who hold various perspectives. These facts will limit the ability to accurately describe all necessary considerations. In some cases, it was difficult to find recent data that is an accurate reflection of the current population. Due to the dynamic nature of India's population, data that is even a few years old may be somewhat outdated. However, a foundational understanding of each factor allows recognition of important limitations and barriers as well as strengths. This understanding enables the creation of a program that utilizes cultural competency in order to effectively serve the intended population by providing cultural context. This chapter detailed different impacting agents on reproductive health thought, behavior, and rights. The next chapter will discuss the current government and non-profit sexual and reproductive health resources that are available to Indian women.

CHAPTER TWO

Current Reproductive Health Programs Available in India

In order to create an effective reproductive health program, it is essential to understand what services, resources, and information are currently available to the public. The previous chapter detailed different impacting agents on reproductive health thought, behavior, and rights. This chapter will build on that information to create a clearer picture of what services are actually available. The Indian government provides various services within the realm of reproductive health, including public healthcare facilities, a gender based violence helpline, free maternal health care, and family planning. However, each of these services has gaps in coverage and weaknesses that prevent universal access to care. There are also multiple non-governmental organizations that provide services in an attempt to fill in the gaps of government services. Three notable NGO's are Population Health Services International, Pathfinder International, and Swasti. In some areas the NGO's and government initiatives partner together to create a greater level of service. This chapter will outline the major services and programs offered by the government and NGO's as well reviews of those services.

Government Resources

Medical Infrastructure

Government hospitals are the primary facilities used by the Indian population for health care. These hospitals are typically located in urban areas with high population.

Although no government health insurance system exists, public health care is set up to be affordable and accessible. However, reviews and studies of public hospitals have found several gaps in care. A detailed study of government hospitals and medical facilities completed by Vikas Bajpai in 2014, found the primary challenges to be, "deficient infrastructure, deficient manpower, unmanageable patient load, equivocal quality of services, and high out of pocket expenditure" (Bajpai, 2014, 2). A main source of the deficient infrastructure is that much of the planning for government health facilities was done in 1946. There have been some amendments, but much of the original plan still operates. Therefore, it is outdated and cannot meet the needs of the much greater population nor is it fit to meet current medical standards. According to World Bank data about India, in 2011 there were only .7 hospital beds per 1,000 people (World Bank, 2011). An additional problem is the lack of equal distribution of the beds as, "there is a concentration of available beds in a tiny proportion of bigger cities" (Bajpai, 2014, 5). Another issue is that in some areas where infrastructure exists, facilities are undermined by a lack of reliable electricity and water, which are fundamental to provision of care (Bajpai, 2014).

The second issue Bajpai asserts is deficient manpower. A majority of medical professionals work in private or for-profit medical facilities because they pay better and the conditions are superior overall. Similar to the distribution of infrastructure, few government medical professionals work in rural areas (Bajpai, 2014). According to the World Bank there are 1.7 nurses and midwives available per 1000 people in 2011. Physicians are even fewer to come by with only .739 per 1000 people, but the number is much fewer in rural areas (Bajpai, 2014). In a women's hospital in Jhansi, there was only

one nurse after 4:00 p.m. who provided care for the hospital's 100 beds, the labor room, and the surgical room used for caesarian sections when they were needed. Bajpai reported similar conditions in at least five other hospitals. Due to the incredibly high caseload, doctors and nurses feel extreme pressure to see as many people as they can which causes them to sacrifice quality and time with patients (Bajpai, 2014). Another issue is that doctors who have the skills and connections often relocate to private medical facilities when they have the opportunity because the work environment is less stressful. This leads to a cycle of limited doctors available for huge numbers of patients, which creates Bajpai's third issue, "unmanageable patient load". The patient load is so great because the government hospitals are typically located in urban areas with very large populations. Due to a lack of rural medical care, many patients will travel to the hospital, further increasing the patient load. Issues such as chronic absenteeism by doctors and other medical professionals, nearly 40 percent were found to be absent from their posts on a typical working day in a national study, make the patient load worse (Bajpai, 2014). A lack of an effective referral system also creates much more unmanageable patient loads because there is not filtering system for patients. This is made worse by a lack of communication between different health sectors.

The third issue Bajpai found is, "equivocal quality of services" (2014). Due to the perceived higher quality of private health care, government facilities have molded their services to match them. However, public facilities do not have the manpower or funding to effectively do this. This has resulted in out of pocket costs to increase for services. In addition to this, private facilities tend to hire the most qualified medical professionals so government facilities cannot compete. All of these factors contribute to make out of

pocket expenditures on health care very high. The public health expenditure is only 1.06% of the GDP. More than sixty one percent of all spending on health care is from out of pocket expenditure (Bajpai, 2014).

Women Helpline Scheme

Due to the prevalence of domestic abuse and gender-based violence, a program that seeks to serve women's health must be aware of the dangers that so many women face. In a study completed by the United Nations of women aged 15-49 living in India, 37% had experienced some form of physical or sexual partner violence throughout their lifetime and 24% had experienced it in within the last 12 months (UN, 2016). The Indian government has recognized this as a major problem and has dedicated an emergency helpline for women. In addition to that, some state and local governments partner with different NGO's to provide increased services. Although India has a system of emergency helpline numbers to contact police, firefighters, and ambulance services, there is a dedicated emergency helpline for women who are facing violence. The Indian Constitution establishes that, "the right to a life free of violence is a basic human right." (Ministry of Women and Child Development, 2016, Page 1). In recent years, there has been an increase in reported violence against women, which likely means that it is easier and safer for women to report. However, the government still believes it is likely that many acts continue to go unreported. The Women Helpline Scheme works by having a dedicated number that someone can text or call and police are notified to come and are

immediately are aware of the nature of the emergency (Ministry of Women and Child Development, 2016).

Through this scheme, police departments have partnered with NGO's to provide additional care and resources. For example, Akshara has a toll free number that is an emergency helpline for women. Female police officers that are trained in handling crises and eliminating violence operate the phone line. Akshara is operated 24/7 in neighboring cities, Mumbai and Thane (Akshara, 2016). Another service is iCall, which operates throughout the entire country (iCall, n.d.). This is a psychosocial helpline that offers service from 10:00 a.m. to 11:00 p.m. It is a counseling service for callers in distress. The trained counselors who operate iCall can offer legal advice and make referrals to other services dependent on the caller's needs. ICall is operated in six different languages and maintains anonymity.

Review of Women Helpline Scheme Services

In the revised helpline guide, the government outlines various weaknesses and gaps in the current system. These weaknesses include the lack of a centralized system throughout the country (Ministry of Women and Child Development, 2016). Some state governments and cities partner with NGO's and provide strong care, but in many areas care is inconsistent and even nonexistent. Due to the lack of consistent care, people may not be aware of what is available to them or they may be in an area where the available services are weak. Another issue that results from the lack of a centralized system is poor referral process, which means people are more likely to fall through the cracks and not

get the help they need. Additionally, no location tracking is available through the helpline. A helpline responder will only know the caller's location if the caller can relay it. This creates a multitude of problems if the caller does not know her location or is not able to communicate it. Furthermore, various numbers are listed for different emergency services. Due to this design, callers may phone the wrong service and the transfer process can delay the emergency response. There is also a problem with jurisdictional areas. If someone calls in a different jurisdiction then responders have to transfer the caller. This is a barrier because it also delays care and creates problems if the caller is travelling (Ministry of Women and Child Development, 2016).

Janani Shishu Suraksha Karyakaram

Janani Shishu Suraksha Karyakaram (JSSK) is an initiative by the National Rural Health Mission that aims to, "[reduce] maternal and neonatal mortality by promoting institutional delivery among poor pregnant women" (2011). The program recognized that high out-of-pocket expenses are a major barrier for women seeking institutional prenatal care and deliveries. It was launched in 2005 and then revamped in 2011 as an adaptation of the National Maternity Benefit Scheme which provided 500 rupees per birth for up to two live births for pregnant women 19 years or older who live below in households below the poverty line. The free services of the current JSSK program are vast. They include: "free and cashless delivery, free C-section, free drugs, free diagnostics, free food during stay in the hospital, free blood whenever required, exemption from user charges, free transport from home to health institutions, free transport between facilities in case of

referral, and free drop back from institutions after 48 hours stay" (National Health Mission, 2011). The program is available for all pregnant women delivering in public health institutions. The program allows women to stay in a government hospital up to 3 days after natural delivery, 7 days after caesarian section, and 30 days if there are complications or the infant is sick.

Review of JSSK Services

Due to initiatives like JSSK, there has been an overall increase in institutional deliveries, which is a primary goal of the National Health Mission and the Ministry of Health and Family Welfare. There has not been a review of the effectiveness of JSSK services on a national level, but a few agencies have reviewed the effectiveness on smaller, local levels. These reviews have similar findings that families still tend to accumulate out of pocket expenditures in public facilities and there is a lack of consistence in quality of care. In Himachal Pradesh, a study found that 40% of families still incurred out of pocket expenses (Tyagi, Pattabi, Kaur, 2016). However, they were substantially less than the pre-JSSK median out of pocket expenditure per delivery in a public health facility of 2,947 rupees and 3,913 rupees in rural and urban institutions, respectively (NFHS-4, 2016). In Chhattisgarh, 56% of women using public facilities still amass out of pocket expenditures (Nandi, Sinha, Joshi, Dubey, Prasad, 2016).

Another major finding is that the quality of urban facilities is much higher than rural areas. (Nandi et al, 2016). A consequence of JSY and JSSK, as reported by Bajpai, is that hospitals known to provide free maternal care are inundated with patients to an extent that the facilities and manpower cannot keep up. One large public hospital in

North India was sponsored by the National Rural Health Mission (NHRM) to provide extensive maternal services because the already few peripheral health institutions were low performing. A specific feature of this hospital is the ambulance service. Due to the extreme number of cases, this hospital has the world record of "deliveries conducted on way to the hospital" (Bajpai, 2014, 9).

Family Planning Programme

The Indian government has a long history of providing family planning to the general population. According to the Ministry of Health and Family Welfare, "the main objectives of National Population Policy, 2000 was to address the unmet needs for contraception and achieving a stable population by 2045, at a level consistent with the requirements of sustainable economic growth, social development and environmental protection." (2017). Family planning is broken down into permanent methods, such as female and male sterilization, and spacing methods, condoms, oral contraception, and intrauterine contraceptive devices (IUCD). The primary method is female sterilization. Although family planning methods are available, a study completed in 2006 reported that 10% of births were mistimed or unplanned and another 11% were not wanted, suggesting needs are still being unmet (Pachauri, 2014). Initiatives under the current program include increasing access to contraception in historically underserved areas and provider greater choices (Ministry of Health and Family Welfare, 2017). Providing family planning counseling for newly married couples and couples who have recently given birth through counselors at public facilities is another set of programs they offer. They

also have a national helpline that provides information regarding family planning, maternal health, and child health.

Public health care facilities are the main source of family planning methods. However, emergency contraception and spacing methods are primarily available at urban, private health care providers, which leaves out rural populations and those who cannot afford or access them. Female sterilization remains the primary method of family planning across demographics. Only 10% of family planning users utilized condoms, oral contraception, or IUCDs (Pachauri, 2014).

Review of Family Planning Programme's Services

Despite increased initiatives by the government, there are certain populations that continue to go underserved. Married adolescents are the largest group with unmet contraceptive needs (Pachauri, 2014). Policy suggestions include emphasizing social marketing for spacing methods and targeting services on married adolescents and rural populations in order to increase overall awareness and accessibility. Although private providers do have spacing and emergency contraception available, public facilities need to provide them at a greater extent because they are the main provider for the poor (Pachauri, 2014). Another under-reached group is the male population. Pachauri asserts that, "men's involvement in family planning remains negligible" (Pachauri, 2014). Public campaigns should focus on healthy communication between men and women and giving women greater choice in choosing their methods. Women's health advocates want an

increased approach to family planning methods that prioritize women's health and safety rather than population stabilization, which is the primary concern of the government.

Non-Profit Organizations Services and Resources

Population Services India

Population Services India, PSI, is a NGO that seeks to provide sexual and reproductive health care products and services that are high quality and affordable (Population Services International, 2017). They are based in Hyderabad, but have clinics around the country. The clinics are intentionally placed in heavy traffic areas that are easily accessible. For example, many are placed near bus stations. These clinics provide a range of services and products including family planning methods, gynecological and antenatal exams, reproductive tract infection treatment, pregnancy tests, menstrual regulation, and safe abortions (Population Services International, 2017). Every clinic has quality control regulations in place that monitor cleanliness, sanitation of tools, and treatment methods. PSI focuses on serving vulnerable groups that maybe go underserved by government services. They have a subsidized treatment fund that allows patients who may not be able to afford care to still receive treatment. PSI also carries out outreach programs to promote public understanding of the services that are available. These are mobile programs that typically go to communities that do not offer public or private care. These outreach programs can be lead by less qualified people because they are not providing medical care that requires training, but instead they educate about available services. PHSI also uses social marketing campaigns to influence public knowledge and opinion. They specifically target misconceptions and stigmas that have dangerous

implications. In 2014, they sold 81 million condoms throughout 2,500 outlets across the country (Population Services International, 2017).

Pathfinder International

Pathfinder International is a non-profit organization based out of the United States that currently works in 19 different countries, including India. Pathfinder provides sexual and reproductive health services by partnering with other institutions at local, national, and international levels (Pathfinder International, 2017). In India, Pathfinder works in various states to provide access to a range of contraceptive methods, train community workers safe practices in communities that are typically difficult to reach, and increase access to maternal care to stop preventable deaths (Pathfinder International, 2017). Although Pathfinder is a large organization with many broad goals and services, they tend to focus their efforts by targeting a problem or weakness in a specific geographic location. Then they develop a program or initiative in response by partnering with the local government or other non-profit organizations.

Some of the current or recent Pathfinder International programs in India are Sashakt, Salaamati, Matrika, and Prachar. Sashakt is an active program in Bihar state that focuses on the Dalit adolescents and young adults. Community workers are trained on contraception options and healthy spacing between births then they conduct home visits and group meetings with young community members. They specifically target young Dalit people because they are typically underserved, extremely poor and often lack access to health care or education. Salaamati is a project in Haryana state where health care providers are trained in a wide range of contraceptive methods, especially injectable

methods. They also work to ensure that the contraception is consistently available by members. This project is funded by the Bill and Melinda Gates foundation. Matrika is a program in Uttar Pradesh that was created in response to the extremely high maternal mortality rate in Uttar Pradesh, which has the highest maternal mortality rate in India (Pathfinder International, 2017). Pathfinder partners with local health care providers and provides training to recognize major complications that cause maternal mortality and strengthen treatment and intervention. They also provide postpartum contraception. They work with community workers to recognize risk factors, inform where to receive care, and increase access to emergency medical transportation. Through Matrika, women in rural areas without adequate health care services are able to use telecommunication to connect with medical professionals. Prachar program is in Bihar state. Pathfinder trains government health workers to share accurate and nonjudgmental contraception information with young community members. Young couples are encouraged to learn about contraceptive options and then choose a method. This is intended to postpone first pregnancies and healthily space successive ones. Training is also available for parents and other influential adults to challenge stigmas and unhealthy norms concerning early marriages and reproduction. Women who participated in Prachar program got married 2.6 years later than women who did not participate (Pathfinder International, 2013).

Swasti

Swasti is another international health resource center that emphasizes achievements in public health outcomes for demographics that are excluded and poor (Swasti, 2015). Swasti primarily partners with different governments and NGO's to

utilize best practices rather than duplicate services. They emphasize advocating for legislature and policies that protect the health and wellbeing for vulnerable people groups, such as people living with HIV, survivors of gender-based violence, and impoverished communities that lack healthy family planning resources. Swasti has a wide range of initiatives and services.

In 2012, one program was undertaken in five villages where Swasti worked with local governments and village leaders to educate about HIV with the goal of minimizing stigmas and discrimination (Swasti, 2015). A baseline evaluation was given before training was implemented. Swasti partnered with two larger organizations, International Center for Research on Women and United Nations Development Programme, which provided resources and funding. This program inspired further teams to educate other government departments and reach out to the community to share some of the discrimination that people living with HIV face.

Swasti also manages an initiative for healthy family planning and reproductive health practices. The group partnered with the German Foundation for World Population to advocate for policy change and provide resource mobilization. Swasti held workshops for local government bodies and trained them about accessing funding and implementing policy change to create healthy family planning initiatives in their communities. Swasti also has several programs dedicated to fighting gender-based violence. They have created an in depth database that connects clients to a wide range of services, such as medical care, legal advice, and therapy or counseling services (Swasti, 2015).

Conclusion

Although there is a wide range of reproductive health services available in India, there continue to be trends in weaknesses that inhibit universal access to services, which is an important goal for women to be able to make informed, safe choices regarding their health. Government resources include public healthcare providers, a gender based violence helpline, free maternal health care, and the Family Planning Programme. NGO efforts typically work in tandem with the government resources and they cater their services to fill in gaps in government care and to reach the underserved demographics. Unequal access to government services makes some populations more vulnerable. Rural populations have substantially less access to adequate healthcare and often have to travel to receive care, which makes costs much greater, or go without. Adolescents have little access to education regarding safe family practice techniques and contraceptive choices. The poor have many barriers between them and adequate health care because out of pocket expenses are substantial. Rural populations have less access to domestic violence services. Although NGO efforts like Pathfinder International, Population Health Services International, and Swasti are making important strides, there are members of the population who go underserved, which can have severe consequences for women and their families. The next chapter will build on these identified weaknesses to establish clearer areas of women's reproductive care that need to be addressed in order to create a more effective program.

CHAPTER THREE

Program Evaluation

Introduction

A program evaluation is an important research tool in assessing the effectiveness and efficiency of a program (CDC, 2016). This evaluation will follow the Center for Disease Control's model. The CDC emphasizes six areas in its program evaluation, engaging stakeholders, description of program, focus on evaluation design, gathering credible evidence, justify conclusions, and ensure use and share lessons. Programs are also evaluated with the four standards, utility, feasibility, propriety, and accuracy (CDC, 2016). Outlining services, target recipients, and funding providers is helpful to determine gaps in nongovernment coverage as well as trends in care. It can also show the overall quality and thoroughness of services being provided.

Criteria and Methodology

Through this program evaluation, ten nongovernmental care providers that work within the realm of reproductive health in India were identified and evaluated. The criteria for each of the programs is that they must provide services that are either educational, resource provision, connecting clients with community resources, or improvement of reproductive healthcare quality. Although all of the programs are carried

out by nongovernmental organizations, many of them partner with Indian state or federal government for resources, manpower, and funding. The ten programs identified in this evaluation are Matrika, Sashakt, Corporate Social Responsibility for Family Planning, Salaamati Project, Avahan, Prachar, Udaan Adolescent Education Programme, Advance Family Planning Project, Expanding Access to Intrauterine Contraceptive Device Services in India, and Advocating for Quality in Family Planning. These programs were developed by a variety of nongovernmental organizations including, Pathfinder International, Swasti, and JHPIEGO.

After identifying the NGO's, evaluation categories were configured. The first of the categories is if they provide services to a vulnerable population. Vulnerable populations include residents of rural areas, men who have sex with men, female sex workers, poor, and uneducated women. Next, it identifies if the program utilizes evidence-based practices.

The next three categories evaluate the type of services offered through the program. There is then the clarification of whether the program provides financial support to individual clients. Many programs provide financial support to community partners or in-kind resources, but that is not included in this category. Then, it identifies if services are educational through groups, classes, marketing campaigns, or case managements. The next category of this section is whether the program provides contraceptive or prenatal resources. This includes any modern contraception method, prenatal vitamins, or other necessary medications.

The next category is whether or not the target population includes men. It is imperative to engage men in the conversation of safe sexual and reproduction practices.

This category includes adolescent or adult males. Then, there is the category that identifies the program's service dates. This is an important category to take note of because many of the programs included took place for a few years, but have since been discontinued. The next category is whether or not the program provides training for local workers. Local workers include healthcare workers, teachers, and social workers. Training for local workers can establish greater sustainability and continuation of practices. The final category identified is quality improvement. This is described as a program committing their resources, research, and finances towards strengthening the quality of local community efforts and healthcare practices.

Findings

Programs 1-5

Program Name	**Matrika**	**Sashakt**	**Corporate Social Responsibility for Family Planning**	**Salaamati Project**	**Avahan**
Program Description	Partnership with state government and World Health Partnerships to provide antenatal care, emergency obstetric care, and postpartum contraception	Focused training for local healthcare workers to educate Mahadalits about reproductive and sexual healthcare	Partnership with Indian corporations to promote investment into family planning services and corporate social responsibility	Provision of injectable contraception by training local healthcare providers and making contraception is available	HIV prevention for vulnerable populations through education, treatments, and connecting service providers to communities
Organization	Pathfinder International	Pathfinder International	Pathfinder International	Pathfinder International	Swasti
Funding Source	Merk for Mothers	David and Lucille Packard Foundation	Advance Family Planning	Bill and Melinda Gates Foundation	Bill and Melinda Gates Foundation

Target Vulnerable Population (rural, poor, undereducated)	Yes, Uttar Pradesh	Yes, Mahadalit Population	No	No	Yes, female sex workers, transgender, and men who have sex with men
Utilizes Evidence-Based Practices	Not Stated	Yes	Not Stated	Not stated	Not Stated
Provide Direct Financial Support	No	No	No	No	No
Services are Educational	Yes	Yes	No	Yes	Yes
Provide Contraception or Prenatal Resources	Yes	No	No	Yes	Yes
Target population includes men	Yes	Yes, school-aged boys	No	No	Yes
Year	2013-2016	2015-present	2016-present	2015-2017	2003-present
Provide Training to Local Workers	Yes, trains ASHA's	Yes	No	Yes	Yes, partners and trains local community organizations

Quality Improvement	Yes, aims to improve accessibility and quality of local workers, and local clinics	Yes, strengthens government method of providing care to vulnerable population	Yes, partners corporations with healthcare providers to improve funding	Yes, improves access and provider's knowledge of reversible contraception	Yes, increase in overall services, quality, and funding

Programs 6-10

Program Name	**Prachar**	**Udaan Adolescent Education Programme**	**Advance Family Planning Project**	**Expanding Access to Intrauterine Contraceptive Device Services in India (EAISI)**	**Advocating for Quality in Family Planning**
Program Description	Partnership with local healthcare workers to train young adults about family planning methods and safe sexual practices	Educational curriculum targeted towards secondary school students that covers reproductive health and sexual health.	Advocacy for increased government funding for reproductive health services. Establishment of local working groups to provide services	Partnership with local healthcare providers to ensure access to multiple contraceptive options and provision of counseling and improve quality of institutional services	Partnership with public and private care healthcare providers to develop best practices and streamline care
Organization	Pathfinder International	N/A	JHPIEGO	JHPIEGO	JHPIEGO

Funding Source	David and Lucille Packard Foundation and UNFPA	David and Lucille Packard Foundation	Bill and Melinda Gates Foundation	Anonymous Donor	Bill and Melinda Gates Foundation
Target Vulnerable Population (rural, poor, undereducated)	Yes, rural villages	No	No	No	Yes, focus on hard to reach populations
Utilizes Evidence-Based Practices	Not Stated	Yes	Yes	Yes	Yes
Provide Direct Financial Support	No	No	No	No	No
Services are Educational	Yes	Yes	No	No	No
Provide Contraception or Prenatal Resources	No	No	No	Yes	No
Target population includes men	Yes	Yes, school-aged boys	No	No	No
Year	2001-2013	2006-2016	2015-2016	2010-present	2016- present

Provide Training to Local Workers	Yes, community Frontline workers	Yes, teachers and community health workers	Yes	Yes, trains local providers and counselors	Yes, goal is to provide findings to government and care providers
Quality Improvement	Yes, improved quality of local healthcare facilities	Yes, strengthen government school's health curriculum	Yes, the main objective is to improve family planning services	Yes, improves quality of local providers and capacity for counseling services	Yes, finds best practices to improve quality and accessibility by using EBP's

Findings

Programs 1-5

Program Name	**Matrika**	**Sashakt**	**Corporate Social Responsibility for Family Planning**	**Salaamati Project**	**Avahan**
Program Description	Partnership with state government and World Health Partnerships to provide antenatal care, emergency obstetric care, and postpartum contraception	Focused training for local healthcare workers to educate Mahadalits about reproductive and sexual healthcare	Partnership with Indian corporations to promote investment into family planning services and corporate social responsibility	Provision of injectable contraception by training local healthcare providers and making contraception is available	HIV prevention for vulnerable populations through education, treatments, and connecting service providers to communities
Organization	Pathfinder International	Pathfinder International	Pathfinder International	Pathfinder International	Swasti
Funding Source	Merk for Mothers	David and Lucille Packard Foundation	Advance Family Planning	Bill and Melinda Gates Foundation	Bill and Melinda Gates Foundation

Funding Source	David and Lucille Packard Foundation and UNFPA	David and Lucille Packard Foundation	Bill and Melinda Gates Foundation	Anonymous Donor	Bill and Melinda Gates Foundation
Target Vulnerable Population (rural, poor, undereducated)	Yes, rural villages	No	No	No	Yes, focus on hard to reach populations
Utilizes Evidence-Based Practices	Not Stated	Yes	Yes	Yes	Yes
Provide Direct Financial Support	No	No	No	No	No
Services are Educational	Yes	Yes	No	No	No
Provide Contraception or Prenatal Resources	No	No	No	Yes	No
Target population includes men	Yes	Yes, school-aged boys	No	No	No
Year	2001-2013	2006-2016	2015-2016	2010-present	2016- present

Provide Training to Local Workers	Yes, community Frontline workers	Yes, teachers and community health workers	Yes	Yes, trains local providers and counselors	Yes, goal is to provide findings to government and care providers
Quality Improvement	Yes, improved quality of local healthcare facilities	Yes, strengthen government school's health curriculum	Yes, the main objective is to improve family planning services	Yes, improves quality of local providers and capacity for counseling services	Yes, finds best practices to improve quality and accessibility by using EBP's

It is important to note that funding primarily comes from foundation grants with the two most prolific being the Bill and Melinda Gates foundation and the David and Lucille Packard Foundation. Programs that target vulnerable populations include Matrika, Sashakt, Avahan, Prachar, and Advocating for Quality in Family Planning. Only one of the programs, Avahan, targets men who have sex with men and female sex workers in their population. Additionally, only one project, Sashakt, provides services specifically for the Mahadalit population. Often, Dalits live on the outskirts of their community and are excluded from public services (Nagar, 2006).

No programs provide direct financial support to clients. However, many of them provide in-kind services through contraception and medication. Additionally, many of the programs provide funding and resources for local healthcare providers and for healthcare personnel. Six of the programs have an educational component for their target population. This includes education through public school curriculum, groups, community meetings, and case management. Only four of the programs provide contraceptives directly to their clients. Other programs may educate about contraceptive options or connect populations with healthcare facilities that can provide them.

Five of the programs target some of their services towards males. Although men may participate in some of the other programs, they are not targeted. All of the programs, except for one, provide trainings for local workers. This is an important step towards sustainability and longevity of services. Many of these workers include ASHA's who are Accredited Social Health Activists promoted by the National Rural Health Mission. ASHA's are volunteers chosen by their home village to receive healthcare training. They are then responsible for promoting good health within their village by communicating

with government providers, leading classes, and providing contraception and prenatal medications (NRHM, 2014). Five of the programs explicitly stated that they are evidence-based. Although the other programs did not claim this, it is likely they based their services off of other programs or research.

One universal commonality is the inclusion of quality improvement within each of the programs. This includes training local community workers, health care providers, and teachers. In other cases, quality is improved by strengthening the referral and communication systems between smaller healthcare providers and larger, government healthcare facilities. JHPIEGO improves quality by promoting research through their initiatives to enable future evidence-based practices. Some of the quality improvement initiatives include partnering with corporations to fund healthcare, Corporate Social Responsibility for Family Planning. Another program, Udaan Adolescent Education Programme, created a reproductive health curriculum for Indian public schools.

Analysis

Two important trends that each program follows are the commitment to train and partner with community workers and the commitment to improve quality of services. These are both examples of increasing sustainability and longevity of services. Many of the programs engage ASHA's and local healthcare workers. These people can work as gatekeepers of their communities and help outside organizations connect with their target populations. ASHA's are utilized as reproductive health teachers within their communities and their involvement may make community members feel more open to

receiving resources from an outside organization. This is an important method of maintaining cultural-competency in service provision, as these workers likely understand their community better than any outside provider could. Additionally, these workers can continue to provide services or use their training after the program has ended, which minimizes the need for long term services and should decrease the required funding over time. Another method of increasing sustainability is the commitment to improving quality. Many of the programs invest resources, research, and funding into local healthcare providers. This means that quality services can be offered after the program has ended.

There is a universal absence of providing direct financial support to clients. The Indian government has done a good job of making services and contraceptive resources available for low costs. An issue however, is lack of access to these resources or knowledge of payment policies. Through educational initiatives, NGO's are able to bypass this weakness and ensure that target populations can access contraception, prenatal resources, and reproductive healthcare facilities. A potential issue is that some programs offer education about contraception, but do not provide them. This could be an issue for people who live in rural areas and lack access to government facilities.

An important gap to note is the fact that vulnerable populations are not being targeted. Some of the programs target young people, but none of them target adolescents or young adults who are not in school. This could be harmful for young women and adolescents who are married and out of school, as they may not have access to the NGO's services. Additionally, only one program targets Mahadalits, who are on the fringes of

society. Programs that take place in schools, local healthcare facilities, or through ASHA's may not be accessible for Mahadalits.

Limitations

A major limitation of the study is getting information from websites, marketing tools, and digital publications from programs. This could be problematic as NGO's may only release the successful parts of their programs, but leave out areas of weakness or discontinued services. Some of this problem is mediated by using outside sources of information, like peer-reviewed articles and news publications. This is also potentially a weakness because some projects may not have a website or online presence. This could lead to a limited view of what services are provided.

Another limitation is the lack of clarity regarding funding. Every program evaluated received funding from a foundation or donation. However, exact funding amounts for the program is unknown, which means it is difficult to understand how much a program would cost to implement. A final limitation is a lack of clarity on the geographical location of programs. Many of them will say the state or city they are located, but this makes it unclear if they are located in city centers, schools, local hospitals, or if they set up in villages or other rural sites.

Future Areas of Study

An important step in getting a well-rounded view of NGO services would be interviewing care providers and frontline workers. This would be helpful in learning why

specific populations and interventions were singled out. It would also be helpful in learning about challenges that are not seen through the websites. Another future area of study is evaluation methods utilized by these NGO's to ensure quality of their services.

CHAPTER FOUR

Project *Rani* Proposal

Content Brief

This proposal is for a hypothetical nongovernmental organization program in Rajasthan, India called Project Rani that is built upon the research presented in the previous chapters. In Hindi, the word *Rani* means queen. India is primarily a patriarchal society where many traditions and cultural practices promote the benefits of men. Rajasthan translates to "Land of Kings." Project Rani is geared towards protecting women's health, promoting safe sexual practices, and enabling women to make educated decisions regarding family planning and maternal care.

The program will begin by partnering with a single village community in Rajasthan and working with the community for three months. Within the community, the initiative will work directly with the rural health workers, who are government figures. In the community, program staff will lead educational groups. This program will be registered as an NGO with the local government under the Trust Act. This proposal outlines the identified problem and its source, Project Rani's goals and objectives, indicators for measurement and evaluation, current NGO efforts in the area, and a budgetary plan that includes the possibility for results-based financing for future implementation

Problem Statement

Although poor reproductive health and maternal health is a national concern, Rajasthan was identified as an area with particularly poor health outcomes. It has a population of 68.6 million people and 75% of the population lives in rural areas (Ivengar, 2012). In rural areas, health outcomes are significantly worse. In rural Rajasthan, the maternal mortality rate is 318 per 100,000 live births and the neonatal mortality rate is 44 per 1,000 live births (Ivengar, 2012). The fertility rate per woman is 2.6 (Ivengar, 2012).

Within the National Family Health Survey's information about Rajasthan, the data is separated into urban and rural areas. This proposal will focus on serving rural areas, so that is the data that will be presented. There are concerning statistics that have greater associations of not using family planning methods. Young marriage age is represented as 40.5% of women aged 20-24 were married before turning 18 (NFHS-4). Another factor is education levels; only 49.8% of women are literate (NFHS-4). 58.3% of married women aged 15-49 uses some method of family planning. The most common method reported was female sterilization at 42.5%, which is consistent with national data. The next common method was condoms at 6.1%. The survey also covers quality of family planning services. Only 17.4% of women who were not using a method had ever talked to a health worker about services or options. Another concerning statistic is that only 41.8% of users had ever been told the side effects of their current method (NFHS-4).

Source of the Problem

The main identified problem is poor female reproductive health and maternal health as indicated by high maternal and neonatal mortality rates, high rates of AIDs and

STIs, and low knowledge and understanding of family planning methods (NFHS-4). Although it is difficult to pinpoint a definite source of the problem, a major factor is a lack of knowledge within communities. This lack of knowledge is exacerbated by poor access to hospitals and a reliance on the limited number of rural health workers. For women who do have access to hospitals and government facilities, there is still high out of pocket cost, which indicates that there is a lack of knowledge of services and resources. Communication between rural women and health workers seems to be low as indicated by poor knowledge of family planning methods (NFHS-4).

Other influential factors are likely high illiteracy rates and low levels of education. Another factor is certainly high rates of poverty, which makes it difficult to afford medical care, buy contraception methods, and travel to care facilities. Other factors could be a younger age of marriage and childbearing.

Project Goal and Objectives

The overall project goal is to combat poor reproductive health outcomes for women living in rural Rajasthan through educational interventions. Within this goal, there are several more specific objectives. These objectives were developed using the SMART technique to make sure they are specific, measurable, achievable, relevant, and time-bound (Turkay, 2014). In addition to directing services towards women, men must be included because of their influence and power within family systems. Men are more often than not the decision makers for family planning and healthcare for their households so it is important that they are educated about healthy behaviors and available

resources. Additionally, through role-playing, men may be encouraged to take on a more supportive role rather than controlling one when it comes to their wives' reproductive health.

Strategies and Activities

Objectives will be planned for three demographics within the village population: adolescent females, women, and men. In addition to group work with each of these three populations, the initiative will work with the local government to build community awareness and advocate for policies that are reflective of evidence-based practices. In order to build community trust and work with cultural competency, the initiative will include a partnership with local ASHA's and other community health workers. This partnership will be important in developing universal knowledge regarding safe sexual practices into targeted educational training sessions that account for local culture and practices. These ASHA's and community health workers will also be encouraged to continue providing the trainings or utilize any resources after the project closes. ASHA's and local community leaders will also be used for location scouting and to build rapport with community members. The initiative will also utilize local languages to encourage greater engagement in group sessions. Through groups, there will also be an option for home visits to work with people on an individual level.

For adolescent girls, the initiative will lead bi-weekly educational groups that will have a focus on STI recognition and prevention, safe sexual practices, and healthy relationships. In addition, groups will cover empowerment for the girls around how they can advocate for themselves in their relationships. The objective is to increase knowledge

in these areas and decrease stigmas about sexual activity, and to promote safe sexual behaviors.

For women, bi-weekly educational groups will have a focus on contraception/family planning methods and community/government resources. The objective is to increase knowledge of family planning and available resources. Another objective is to increase rates of institutional births and prenatal/postnatal doctor appointments. A final objective will be to see an increase in healthy relationships, which will be indicated by a relationship survey.

For men, weekly educational group sessions will focus on STI recognition and prevention and contraception/family planning methods. Groups will also focus on encouraging men to openly discuss family planning methods with their wives. This will also include information about family planning after giving birth to prevent rapid repeat pregnancies. An objective will be a decrease in STI contraction and an increase in knowledge. There will also be a focus on healthy and supportive relationships.

Indicators

For evaluation purposes, indicators must be measurable. An increase in knowledge and awareness will be indicated by pre and posttest scores about knowledge of STI's, community resources, and contraception/family planning methods. These will be administered through a short paper survey during the first group session and again at the final one to gauge learning. Another indicator will be rates of institutional births, which should increase if the educational groups' objectives are met. This will be reported

by hospital report numbers and self-reporting from community participant surveys. It will be important to evaluate institutional birth rates for the following years after the project to gauge the lasting impact of services. Additionally, an increase in prenatal and postnatal appointments should be indicated by the community health worker and local hospital intake forms. For men, an indicator will be increased participation in family planning communication. Process indicators will be attendance retention and participation in group sessions. Attendance will be taken at each group session.

Current NGO Efforts

It is imperative to note current NGO efforts that combat this issue. These NGOs can have different impacts. It is important to avoid dedicating resources towards an unnecessary duplication of services. Familiarity with NGOs may make a community more comfortable with interacting with a new facility. Additionally, NGO's are a good source of best practices and research-based actions to combat a recognized social issue. In this case, I will discuss different NGOs based out of Rajasthan that work within the realm of women's health and women's empowerment.

Rajasthan Samrah Kalyan Sansthan (RSKS) is an NGO that offers social services in a multitude of areas including microfinance, health, and nutrition. RSKS has a safe motherhood program that focuses on educating health workers through recommended strategy publications and training meetings. RSKS focuses on identifying issues of great priority and conducting research to keep initiatives and efforts current. RSKS also has an HIV/AIDS control campaign through which they lead groups, seminars, and camps to

build community education about protective practices and safe behaviors. Additionally, they lead women's groups about negotiating safe sex practices. A goal of this program is to reduce some of the stigma in seeking care for STIs. Through this campaign, RSKS has educated 2000 laborers, truckers, and migrant workers about safe sex workers (RSKS, n.d.).

The Antara Foundation is another notable NGO that works within the realms of maternal health and child heath. Antara is driven by the knowledge that many of the deaths of children and mothers during childbirth could be prevented by improved access to healthcare and better nutrition. They also recognize the transferable benefits of health to other sectors of flourishing such as economics and education. A major initiative is maternal morbidity. Three primary interventions include "regular ante-natal check-ups, institutional deliveries, and proactive treatment of anemia" (Antara, 2017). Antara has a strong practice model of working on three different planes. They work directly with communities to create informed populations, partner with government health workers to ensure they are utilizing best practices and have access to necessary technology, and they support governments in including policies that promote the wellbeing of women and children (Antara, 2017).

Jatan Sansthan is an NGO that primarily targets youth in 1200 villages across Rajasthan. Much of their work is providing educational support and literacy classes for adolescent girls. An additional goal is to encourage female involvement in local governments by supporting women running for office and educating women about their ability to participate in their government. A major project of Jatan Sansthan is called *Hilor*. Hilor uses evidence-based practices to enhance adolescent girl's knowledge and

access to health resources, increase peer support systems, and enhance community beliefs in the rights and potentials for girls. A major goal of Hilor is to give girls access to education and opportunity and delay early marriage and unwanted teenage pregnancy (Jatan Sansthan,

Rajasthan Bal Kalyan Samiti (RBKS) is an NGO that works with tribal and village populations. One of their initiatives is holding regular health camps where they treat on average of 1200 patients in a day. These camps serve the general population and services are offered for pregnant women and infants to promote positive health outcomes. In addition to healthcare, RBKS offers services geared towards female empowerment in tribal communities. This care includes residential hostels to offer a safe home for girls where they can attend school and vocational training. RBKS combats issues from a very practical standpoint by organizing educational events and connecting remote villages to resources. A major focus appears to be on sustainability (RBKS, 2017).

Project Goal	Combat poor reproductive health outcomes for women living in rural Rajasthan through educational interventions		
Objectives	**Adolescent Females**	**Women**	**Men**
	Increase adolescent females' knowledge of reproductive options and STI recognition/prevention	Increase women's knowledge of family planning methods and community/government resources for maternal and reproductive health	Increase men's knowledge of contraception/family planning methods and STI recognition/prevention
Indicators	Attendance retention in groups Pre/Post Survey	Attendance retention in groups Increase rate of institutional births Increase rate of prenatal/postnatal medical appointments	Attendance retention in groups Decrease rates of STI's
Strategies	Awareness Raising	Counseling	Educational groups

	Educational Groups Informational Resources	Awareness Raising Educational Groups	Awareness Raising Informational Resources
Activities	Bi-weekly educational group sessions Home visits	Bi-weekly educational groups Referrals to relevant medical practices Home visits	Weekly educational groups Referrals to relevant medical practices

Budget

The initial three months of Project Rani will be a pilot test in order to strengthen best practices of building trust within the community and developing relationships. Budgetary considerations include: staff, travel, accommodations, trainings, materials and equipment, government registration, advertising, telecommunications, and location costs. Within the budget, salaries and living accommodations were estimated for six staff members, which is a reasonable team to complete marketing tasks, community practice, and to facilitate groups.

The budget values are taken from databases of average salaries, rent, phone services, and public transportation costs in Rajasthan. However, these values should not be considered perfect. If this program were being implemented in actuality, it would be important to review local costs, which is impossible to do virtually. Other values were estimated. The values are represented in Indian Rupees and in United States Dollars (Numbeo, 2018).

Budgetary Item	Expected Cost (Rupees)	Expected Cost (Dollars)
Salary (6 staff)	540,000	8,289
Training	2,000	30.65
Transportation	9,000	141.00

Accommodation	30,000	460.5
Equipment/Supplies	5,000	76.75
Marketing	1,000	15.35
Telecommunication	6,000	92.10
Government Registration	100	1.54
Unexpected Costs	5,000	76.75
Total	589,100.00	8839.37

This initiative would be a good model for Results-Based Financing (RBF). RBF is a promising tool within the sector of public health as it ensures that only effective programs are funded and maintained. "In an RBF program payments are made based on the quantity and quality of health services delivered after verification" (The World Bank, 2013 p. 1). The initial program could be used as a pilot test to create specific goals and targets, which could then be presented to state governments or the Ministry of Health for future implementation in other villages within Rajasthan.

Barriers

In order to propose a project that is flexible and able to withstand challenges, it is necessary to anticipate barriers and develop combative measures. It is impossible to anticipate every challenge or barrier, but making a concerted effort should increase effectiveness.

A potential barrier is the challenge of building trust within the community. Due to outsiders providing service and the sensitive nature of reproductive health, it is reasonable to assume that community members will be wary of resources. Language and cultural barriers could further exacerbate this challenge by emphasizing the divide between service providers and recipients. In order to combat this issue, local health

workers will be imperative. They should be considered gatekeepers of their community, so including them and prioritizing their influence will be central to gaining an accurate sense of the community. Another combative measure would be to spend some time in the community doing marketing and building relationships before implementing services. During this time, it would be beneficial to visit homes and begin introductions. This would also be a good time to begin meeting with local healthcare facilities and learning the challenges they face to direct services towards improving them.

Another barrier is the unequal power dynamic that exists between wives and husbands due to the patriarchal nature of Indian society. A national survey found that only around half of women in rural India were making decisions regarding their health care (Gupta et. al. 2017). This could result in women not being allowed to participate in services if their husband feels that are not appropriate or that the subject should remain private. A combative measure would be to direct marketing towards men so they are familiar with the planned services. This also denotes the importance of conveying the service benefits that extend to families. This barrier could similarly impact teenage participants if they do not have the approval from their parents. A combative measure would be careful marketing to develop community interest and buy-in before services begin.

Another method of garnering participation would be incentives for attending group services. These could include providing resources through the group that could include medical cards, contraception, transportation coupons, and infant resources. Publicizing these resources may garner interest within the community for people who would otherwise be reluctant to participate.

Project Summary

The ultimate goal of Project Rani is to combat poor reproductive and maternal health in rural villages of Rajasthan. This will be done by providing services for three targeted populations: women, men, and adolescent females. The objectives of Project Rani include: increasing knowledge and decreasing stigmas regarding sexual activity, increasing knowledge of family planning methods and available resources, increasing rates of institutional deliveries, increasing healthy relationships, decreasing STI contraction and increasing knowledge of protective practices. Throughout planning and trainings, there will be a focus on sustainability, efficiency, and cultural-competency. A final objective is to increase the capacity and training for community health workers. Project Rani is presented as a three-month pilot program, which will influence the development of future goals and practices.

CONCLUSION

This research project began by recognizing women living in rural India as a vulnerable population and their lack of quality, accessible, and affordable reproductive healthcare as a social issue. After identifying this concern, the goal of this thesis was to explore contributing factors to the issue and learn the context and environment a targeted NGO program would have to fit within in order to be effective.

In the first chapter, implicating factors on reproductive health for Indian women were identified. These include legislation, religion, class division, geography, and education. This establishes a context for services and provides insight into guiding forces about reproductive health perspectives and practices. The second chapter discussed current reproductive health programs offered by the government and NGOs. This identifies trends in services, location of services, and government spending. It also provides insight into how NGOs have filled in the gaps of government care. Identifying services is an important step in reducing unnecessary redundancy of services.

The third chapter presented a program evaluation of ten reproductive healthcare programs. This detailed evaluation of existing initiatives assesses how organizations have identified necessary goals and use targeted objectives to reach them. This is helpful in utilizing evidence-based practices. The initial research plan was to communicate directly with reproductive healthcare providers in India through a survey. Although the contacted workers seemed interested in participating, communication was difficult. This could have been intensified by the time difference, limited access to technology, and language

barriers. Ultimately, the response rate was so low that an alternative form of research, the program evaluation, was chosen.

The proposal for Project Rani was built upon the foundation of knowledge presented in the first three chapters. Through utilization of evidence-based practices, cultural competency, and partnership with local workers, Project Rani aims to improve reproductive health outcomes for women living in rural villages of Rajasthan. Services are targeted towards adolescent females, adult females, and adult males. The process of developing Project Rani can be applied towards other populations and social issues.

Moving beyond Project Rani, it is encouraging to note that there are promising efforts by the Indian government and NGOs towards improving women's healthcare. Each of these initiatives recognizes the importance of accessible, affordable, and quality reproductive healthcare services. Health is intrinsically tied to all factors of life and greatly influences flourishing and wellbeing. This paper examples a process of developing a program that is thoughtful and research-based to adequately serve a vulnerable population and improve their wellbeing.

BIBLIOGRAPHY

Adolescents and Young People. (n.d.). Retrieved March 22, 2018, from http://jatansansthan.org/

Akshara Center Annual Report. (2016). Retrieved November 2, 2017, from https://www.aksharacentre.org/wp-content/uploads/2017/09/Annual-Report_lowreso2016.pdf

Antara — The Antara Model for delivering public health solutions at scale. (n.d.). Retrieved March 22, 2018, from http://www.antarafoundation.org/the-antara-story/antara-model/

A.P. (2017, March 10). *Press Information Bureau Government of India* (India, Government of India , Ministry of Health and Family Welfare). Retrieved November 4, 2017, from http://pib.nic.in/newsite/PrintRelease.aspx?relid=159064

Avahan: About (2018) *Avahan India Aids Initiative.* Retrieved from http://avahan.swasti.org/about

Bajpai, V. (2014). The Challenges Confronting Public Hospitals in India, Their Origins, and Possible Solutions. *Advances in Public Health*, *2014*, 27. https://doi.org/10.1155/2014/898502

Balarajan, Y., Selvaraj, S., & Subramanian, S. V. (2011). Health care and equity in India. *Lancet,* 377(9764), 505–515. https://doi.org/10.1016/S0140-6736(10)61894-6

Birth Control/Contraception. (n.d.). *BBC*. Retrieved June 20, 2017, from http://www.bbc.co.uk/schools/gcsebitesize/rs/relationships/isloveandsexrev2.shtml

Biswas, Soutik. (2012). Who are the poor in India? *BBC News* Retrieved from http://www.bbc.com/news/world-asia-india-1745

Chakraborty, K., & Thakurata, R. (2013). Indian concepts on sexuality. *Indian Journal of Psychiatry*, 55(6), 250. Retrieved from http://go.galegroup.com.ezproxy.baylor.edu/ps/i.do?p=HRCA&sw=w&u=txshracd248&v=2.1&it=r&id=GALE%7CA317516993&sid=summon&asid=a411e7897bc75d09b25d450ba9f8e736

Chaurasia, A. R. (2014). Contraceptive use in India: a data mining approach. *International Journal of Population Research*, *2014*, e821436. https://doi.org/10.1155/2014/821436

Corporate Social Responsibility for Family Planning (2018). *Pathfinder International.* Retrieved fromhttp://www.pathfinder.org/projects/corporate-social-responsibility-family-planning/

Cost of Living in Udaipur. (2018, March). Retrieved March 22, 2018, from https://www.numbeo.com/cost-of-living/in/Udaipur

DSW - Euroleverage. (2015). *Swasti.* Retrieved November 4, 2017, from http://www.swasti.org/dsw

Framework for program evaluation (2017). *Centers for Disease Control and Prevention.* Retrieved from https://www.cdc.gov/eval/framework/index.htm

Gupta, S. S., Maliye, C. H., Deshmukh, P. R., Raut, A. V., Dongre, A. R., & Garg, B. S. (2017). Gender power dynamics in rural area of India. International Journal of Medical Science and Public Health, 6(10), 1473+. Retrieved from http://link.galegroup.com/apps/doc/A511109370/AONE?u=txshracd2488&sid=AONE&xid=f0b1ce75

Hospital beds (per 1,000 people) India. (2011). *World Band Data.* Retrieved December 4, 2017, from https://data.worldbank.org/indicator/SH.MED.BEDS.ZS?end=2011&locations=IN&name_desc=false&start=1999

ICALL Psychosocial Helpline. (n.d.). Retrieved November 04, 2017, from http://www.tiss.edu/view/11/projects/icall-telephonic-counselling-service-for-individua/

India, Ministry of Health & Family Welfare. (2014, November 24). *National Health Mission*. Retrieved October 4, 2017, from http://nhm.gov.in/janani-shishu-suraksha-karyakram.html

India, Ministry of Women and Child Development. (2017, October 25). *Universalization of Women Helpline Scheme*. Retrieved November 4, 2017, from http://www.wcd.nic.in/schemes/women-helpline-scheme-2

India's Poverty Profile. (2012). *World Bank Data*. Retrieved June 20, 2017, from http://www.worldbank.org/en/news/infographic/2016/05/27/india-s-poverty-profile

Ismail, S., Shajahan, A., Sathyanarayana Rao, T. S., & Wylie, K. (2015). Adolescent sex education in India: Current perspectives. *Indian Journal of Psychiatry*, *57*(4), 333–337. https://doi.org/10.4103/0019-5545.171843

Iyengar, K. (2012). Early postpartum maternal morbidity among rural women of Rajasthan, India: A community-based study. *The Journal of Health, Population and Nutrition,* 30(2), 213-225.

Jeyarajasingham, K. (2014, June 13). New Indian government must emphasize women's rights. *India Abroad; New York, N.Y.*, p. A29.

Kesterton, A. J., Cleland, J., Sloggett, A., & Ronsmans, C. (2010). Institutional delivery in rural India: the relative importance of accessibility and economic status. *BMC Pregnancy and Childbirth*, *10*, 30. https://doi.org/10.1186/1471-2393-10-30

Mahajan, P. T., Pimple, P., Palsetia, D., Dave, N., & De Sousa, A. (2013). Indian religious concepts on sexuality and marriage. *Indian Journal of Psychiatry,* 55(Suppl 2), S256–S262. http://doi.org/10.4103/0019-5545.105547

Maternal Child Health & Nutrition. (2018). Retrieved March 22, 2018, from https://www.sukarya.org/maternal-child-health-nutrition

Matrika (2016). *Pathfinder International*. Retrieved from http://www.pathfinder.org/projects/matrika/

Nagar, R., & Anupamlata. (2006). *Playing with fire: feminist thought and activism through seven lives in India*. Minneapolis, MN: University of Minnesota Press. Retrieved from http://ezproxy.baylor.edu/login?url=http://www.jstor.org/stable/10.5749/j.ctttt2nn

Nandi, S., Sinha, D., Joshi, D., Dubey, R., & Prasad, V. (2016). Evaluation of the Janani Shishu Suraksha Karyakram: Findings on inequity in access from Chhattisgarh, India. *BMJ Global Health*, *1*(Suppl 1), A4. https://doi.org/10.1136/bmjgh-2016-EPHPabstracts.4

National Family Health Survey 4 India Fact Sheet. (2016). *International Institute for Population Sciences.* Retrieved from http://rchiips.org/nfhs/pdf/NFHS4/India.pdf

Pachauri, S. (2014). Priority strategies for India's family planning programme. *The Indian Journal of Medical Research*, *140*(Suppl 1), S137–S146.

Panchayat Led Action against HIV related Stigma and Discrimination. (2012, December). *Swasti.* Retrieved November 4, 2017, from http://www.swasti.org/stigma-buster

Patil, A. V., Somasundaram, K. V. and Goyal, R. C. (2002), Current health scenario in rural India. *Australian Journal of Rural Health*, 10: 129–135. doi:10.1046/j.1440-1584.2002.00458.x

Pathfinder International: India. (2017). Retrieved October 4, 2017, from http://www.pathfinder.org/work-impact/where-we-work/

Physicians (per 1,000 people) India. (2011). *World Bank Data*. Retrieved from https://data.worldbank.org/indicator/SH.MED.PHYS.ZS?end=2011&locations=IN&name_desc=false&start=1999

Population Services International: India. (2017). Retrieved October 4, 2017, from http://www.psi.org/country/india/#about

Prevalence data on different forms of violence against women (2016). *UN Women Global Database on Violence Against Women*. Retrieved from http://evaw-global-database.unwomen.org/en/countries/asia/india#1

Prevent & Improvement of Health. (2017). Retrieved March 22, 2018, from https://www.rbks.org/about/

Promoting Change in Reproductive Behavior in Bihar (2013). *Pathfinder International*. Retrieved fromhttp://www.pathfinder.org/projects/prachar/

Safe Motherhood Program. (n.d.). Retrieved March 22, 2018, from http://www.rsksajmer.org/Health/Safe%20Motherhood/#

Salaamati Project (2017). *Pathfinder International*. Retrieved fromhttp://www.pathfinder.org/projects/salaamati/

Sashakt: Strengthening adolescent and youth sexual and reproductive health. (2018). *Pathfinder International*. Retrieved fromhttp://www.pathfinder.org/projects/sashakt/

Strengthening Family Planning Service in India (2017) *Jhpiego*. Retrieved fromhttps://www.jhpiego.org/wp-content/uploads/2017/04/FP-Factsheet-Jan-2017-final.pdf

Thirunavukarasu, A., & Simkiss, D. (2013). Developments in Reproductive Health Education in India. *Journal of Tropical Pediatrics,* 59(4), 255–257. https://doi.org/10.1093/tropej/fmt066

Turkay, S. (2014). Setting Goals: Who, Why, How?. Retrieved from https://vpal.harvard.edu/publications/setting-goals-who-why-how

Tyagi, U., Pattabi, K., & Kaur, P. (2016). Utilization of Services Under Janani Shishu Suraksha Karyakram for Institutional Deliveries in the Public Sector Facilities, Sirmaur District, Himachal Pradesh, India. *Indian Journal of Community Medicine : Official Publication of Indian Association of Preventive & Social Medicine*, *41*(1), 65–68. https://doi.org/10.4103/0970-0218.170992

UN. (2016). India Country Profile. Retrieved October 2, 2017, from http://data.un.org/CountryProfile.aspx?crname=India

Upadhyay, R. P., Chinnakali, P., Odukoya, O., Yadav, K., Sinha, S., Rizwan, S. A., … Silan, V. (2012). High Neonatal Mortality Rates in Rural India: What Options to Explore? *ISRN Pediatrics*, *2012*. https://doi.org/10.5402/2012/968921

Vallabhaneni, M. R. (2015). Indian caste system: Historical and Psychoanalytic views. *American Journal of Psychoanalysis*, 75(4), 361-381. doi:http://dx.doi.org/10.1057/ajp.2015.42

Venketraman, C, Plesons, M, Barua, A, Patnaik, A, Gogi, A, Katoch, M, Ziauddin, M, Mishra, R, & Sinha, A. (2017). Udaan case study. *The Packard Foundation*. Retrieved fromhttps://www.packard.org/wp-content/uploads/2017/05/Udaan-case-study.pdf