

Spring 2014

Population, Progeny and Power: Analyzing Population Growth, Family Planning and the Factors that Contribute to High Child Bearing Rates in Kizanda Village, Tanzania

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Population, Progeny and Power

Analyzing population growth, family planning and the factors that contribute to high child bearing rates in Kizanda Village, Tanzania

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April 26, 2014

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Abstract

The population growth rate is reaching an astounding level in Tanzania and Eastern Africa. It is applying increasing pressure on things like social services, land availability, job opportunities, conservation and localized resources. This study looks at the perceptions of both men and women surrounding social and environmental factors contributing to the high population growth rate. It looks more specifically at factors including childbearing, birth control methods and their effectiveness, and how the birth rate correlates with changing quality of life. This study was conducted in Kizanda Village in the West Usambara Mountains of Northern Tanzania, a region following the trend of a high population growth rate as well as a recent introduction to Western birth control. This study took place from April 5th to April 23rd, 2014. Semi-structured interviews (n = 102) resulted in evidence of high use of local methods of birth control but also an increase in the use of Western birth control over the course of the last generation. It demonstrated an inverse relationship between increasing hardship in the region and the number of desired children. However, in post-menopausal individuals, the number of kids had was higher (6.5 kids) than the number of kids desired (5.3 kids) on average. The primary reason for why individuals were having unplanned pregnancies was said to be due to unreliable local methods of birth control caused by high frequency of method violation by men and an inability of women to combat this trend. However, there was a consensus amongst nearly all individuals that through increased education, the use of Western birth control will increase, allowing for a greater ability of couples to stick to the desired number of children agreed upon. Overall, the study suggests that the high population growth rate is rooted in the intensely patriarchal Tanzanian culture that creates a low agency of women. This deeply engrained cultural structure cannot be changed at the rate required by the rising pressures created by the increasing population, such that a focus on the transition to Western contraceptives is a strong intermediate solution.

Acknowledgements

There are a number of individuals that made this project possible that must receive recognition. Thank you to Sokoine University of Agriculture for making this study possible. Thank you to all of my respondents for their incredible honesty and openness; they all taught me so much about a culture so different from my own. Thank you to the entire SIT staff, especially Baba Jack, for pushing me intellectually over the course of the last few months. I would never have pursued ideas or questions that I had had they not been there to disagree or push me further. They also prepared me to navigate Tanzania and organize my methods into a usable form. Thank you to my translator Beatrice. She was exceptionally knowledgeable in both the realms of language and village sentiment. Her guidance was irreplaceable and her tolerance of my high-strung, overly-curious and demanding personality was remarkable. Plus she travelled an insane distance to walk me to town everyday.

An immeasurable thanks to the Mazumbiddies. Mr. Kiparu was instrumental in helping to set up my study and ensuring my time was easy and comfortable. Richard and David, our cooks, were true examples of how Tanzanians are kind, genuine and warm-hearted. Their food was incredible and their company unparalleled. To Claire, Kerry, Emma and B, I couldn't have done it without you. Sunrise yoga, adventures in the forest, laughing fits and long dinner talks, you guys kept me sane but kept life crazy and I had an incredible few weeks. Special thanks to B for keeping me company everyday on our walk to the village and dancing up a storm with the wonderful women of Kizanda.

And thanks to my mom for being the strongest role model, made even stronger because she's a woman.

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Introduction

The global population has undergone a major increase in the last 50 years. The increased access to healthcare in developing countries has allowed the death rate to decrease without a proportional decline in the birth rate, allowing the population growth rate to reach record highs.¹ The global fertility rate has dropped by 50 percent since the 1950's, going from an average of 5.0 children per woman to 2.5 children per woman. But in the least developed nations as defined by the UN, fertility rates have decreased but remain high at 6.6 births per woman in 1980-1985 to 4.2 births per woman in 2010-2015.² Rapid population growth in poor countries causes a lower Gross National Product per capita, decreasing the number of resources that can be allocated to each individual for human capital, which in turn decreases labor productivity and often quality of life.³ Around the globe people are exploiting and depleting the world's resources, creating conflicts over land management and rendering sustainability and conservation efforts nearly impossible, problems that grow directly as population increases.

The United Republic of Tanzania located in sub-Saharan Eastern Africa is one of the remaining countries with a population growth rate still well above the replacement rate. The last census was conducted in 2012 reporting a population of 44,928,923 people in Tanzania,⁴ developing from the estimated 23.9 million people in 1990, increasing to 41 million by 2009 and continuing with an exponential pattern to its current size.⁵ As of 2012, 43.9 percent of the population lies below the age of fifteen suggesting that the country is about to have an incredible number of women entering their fertile years.⁶ Although recently the GDP has been increasing at a higher rate than the rate of population, which is a positive development indicator and unusual for a country with a high population growth rate, the resources going toward human capital have not been increasing equivalently. The combination of disproportionate resource allocation and population growth has caused heavy stress on social services like healthcare and education, created fewer job opportunities and increased pressure on localized resources.

Although Tanzania began undergoing economic policy changes in the mid-1980's through the end of the 1990's in an effort to focus on poverty reduction within the country, it has been a slow transition toward progressing human development. In 2000 Tanzania was ranked 163rd on the Human Development Index, and rose to 151st by 2009, which was only a small gain for a country that has a population increase of about 2.9 percent annually. As population increases at such a dramatic rate, the economy fails to provide employment opportunities to support it with its

employment to population ratio dropping 9% from the 1990's to 2008. It remains in the low-income category with an annual income of only 495 USD with population living under the poverty line dropping a mere 5.0% from the 38.6% in 1992 to 33.6% in 2007.⁷

The number of people in Tanzania is projected to double to an unimaginable 92 million in a mere 17 years.⁸ This time horizon puts limitations and qualifications on all decisions and policies concerning the trajectory and conduct of the country in the coming future. With an incredible emphasis on agriculture as the source of sustenance and income, the expanding population puts immense pressure on land accessibility. Over 80% of Tanzanians are farmers living in rural areas placing enormous value on cultivatable land. Only about 6.7 percent of the cultivatable land is being used and what is being used for agriculture is often affected by changing weather patterns and poor crop output.⁹ Access to land in many regions has decreased wealth in the younger generations as inheritances get divided making life increasingly more difficult for nearly all Tanzanians. The depletion of available land causes individuals to move away from their historical subsistence culture into a more capitalistic economy relying on a monetary income.

Increasing population also creates a higher demand for services such as healthcare and education without the same increase in funding for such programs. As enrollment in primary schools increases dramatically, the Tanzanian government is forced to transfer funding from secondary schools and other types of higher education, to continue to support their guarantee of a primary school education for all. The pupil to teacher ratio remains high at 54:1 in 2009¹⁰ and pass rates out of primary school remain low, potential reasons include limited resources for schools as well as limited space in secondary schools (available only for passing students). Clinics are overrun with young patients, which are particularly vulnerable to diseases and ailments, making use of the current healthcare system increasingly over utilized and undersupplied.¹¹ The effects of population growth cause a decrease in generational wealth as well as pose major threats to conservation, resource management and social services.

Improving reproductive awareness has become a priority of the Tanzanian government. They have targeted areas such as family planning, reproductive health and the provision of contraceptives. Contraceptive use has increased from 10.4 percent in 1992 to 34 percent in 2010 in women over the age of fifteen¹² but has been faced with hurdles such as supplying available education about their advantages and potential side effects as well as cultural obstacles and social hesitation. The government now provides contraceptives in most dispensaries either free or with a

very small administrative fee. However, for many women, Western birth control remains socially unavailable. Many men still disapprove of Western methods and as a part of the historically patriarchal Tanzanian culture, many women are forced to abide by their husband's opinions. Going against them often means estrangement by the husband accompanied by severe disapproval if not rejection from the family.

In the West Usamabaras in Northern Tanzania all of these factors have come together in Kizanda Village, a hamlet of Mayo Ward. There the number of children per mama has been on average 6.3 kids and is experiencing many of the stresses noted above.¹³ My study focused on the perceptions of both men and women in Kizanda Village surrounding social and environmental factors contributing to the high population growth rate. More specifically I examined factors including: child bearing, birth control methods and their effectiveness, and environmental factors determined by changing quality of life.

Study Site

My study was conducted in Kizanda Village in the West Usambaras of the Eastern Arc Mountains, see Figure 1. Kizanda is in the Tanga region of Northern Tanzania previously apart of the Lushoto District but became apart of the new Bumbuli District within the last two years. It is about 400 km from Dar es Salaam and 500 km from Arusha.¹⁴ This distance from Tanzania's largest cities combined with the limited infrastructure of the region has had a large influence over the transport of goods in and out of Kizanda. Kizanda Village has a population of 3,800 people. The community is religiously influenced with about a fifty percent split between Christianity and Islam.



Figure 1. Map of Northern Tanzania and the Eastern Arc Mountains. Adapted from http://lianashootselephants.blogspot.com/2010_09_01_archive.html

The predominant languages are the local language of Kisambaa and the national language of Kiswahili.

The Eastern Arc Mountains are a fragmented mountain range composed of small blocks of mountains separated by lowlands of woodland and savannah. They date back nearly 200 million years when tectonic shifts caused the rising of the central plateau, now known as the Tanzanian and Kenyan highlands and the formation of the Great Rift Valley.¹⁵ Their proximity to the Indian Ocean as well as their cold mountain conditions have created

stable climate patterns over the course of their history that are far wetter than the surrounding lowlands.¹⁶ The mountains,

formed from purely tectonic events, are blanketed in soils that are mostly composed of ancient granite bedrock rather than fertile volcanic soils.¹⁷ The soils are leached of dense nutrients but combined with the conducive climate conditions, they are left mediocre for agricultural uses. However, they are often much better than those in the surrounding lowlands, attracting to the region some of the highest densities of people in Tanzania (100 people/km²).^{18,19}

It is recognized as a global biodiversity hotspot and nominated as a property on the World Heritage List.²⁰ The forests within the mountains act as important water catchment systems providing water, irrigation and hydroelectric power to the lowlands.²¹ They also house countless fauna and flora endemic to the region.²²

Historical societies in the region practiced a sustainable agroforestry system. They had systems of maintaining nutrient levels in the soil through land rotations and sophisticated irrigation systems.²³ German and British colonizers as well as the post-Independence government implemented natural resource practices that were not site-specific resulting in technologies that were often unfavorable to the distinct environments or changing socio-economic landscape.²⁴ Rather than participating in their own development, villagers were often simply carrying out the wishes of the contemporary power, rendering the technologies disintegrated and yet influential to the region.

Kizanda Village is a hamlet of Mayo Ward and is located outside the Mazumbai Rainforest Reserve. Kizanda is composed of 75% farmers and 25% village officials, businessmen, teachers as well as other occupations.²⁵ Nearly the entire population relies on subsistence farms to support their families growing crops such as cassava, maize, bananas, potatoes and beans. Many also grow coffee and tea as cash crops. However, due to the increasing populating in the region land is becoming scarcer as well as divided into small, uneconomically sized plots.²⁶ As well, the increasing Kizanda villagers get 99.9% of their energy resources and building materials from local wood and the nearby forest,²⁷ infringing on the already pressured ecosystem that provides important nutrient balance, erosion prevention as well as the other benefits noted above.

There is a secondary school in Kizanda and a primary school in the neighboring Mayo sub-village. The primary school guarantees education to all children in its district. The secondary school has an enrollment of 180 students, approximately merely the size of the entering Standard 1 class of the Mayo Primary School. There is one dispensary in the village that opened in 1966 with a larger clinic in Mgwashi Village located about twelve kilometers from Kizanda.²⁸ The dispensary supports the hamlet of Mayo. They offer Western contraceptives to the 14,365 women in the region. Western birth control started being administered by the local clinic in 1975 (Matha Mbega, pers comm). Since then, the Tanzanians government has started providing it free of charge. Most commonly, it comes in the form of daily pills or an injection administered every three months. The injection costs 300 shillings (a administering fee) and is reported to be much more popular amongst women in

Kizanda because it does not require the daily dosage required by the pill. Approximately 170 women come to receive the injection every month, with 515 women using them in 2013.²⁹

Kizanda's high birth rate and developing relationship with Western birth control make it a perfect place to study factors behind population growth in Northern Tanzania. As quality of life appears extremely difficult and yet childbearing rates remain high, the reasoning behind more kids merits examination.

Methods

My study was conducted from April 5th to April 24th, 2014. My sample frame consisted of the villagers of Kizanda. My sample population was composed of men and women of a childbearing age (over 15 years of age). My population was divided into pre and post-menopausal women as well as men married to pre and post-menopausal women. This division was systematic because it distinguished between couples that were still capable of bearing children and those that were physically incapable. It was an important distinction because it is apparent that there is potential for more children even when a couple has agreed upon or planned for fewer.

I gathered data through 102 non-random, semi-structured interviews with both men and women. Through this method I accessed as many villagers as possible while keeping my data collection consistent with interviews lasting approximately fifteen minutes using a translator to assist with Kiswahili and Kisambaa. The semi-structured interviews allowed for more in depth conversations or follow-up questions as answers varied, for specific questions see Appendix 1. I interviewed individually using non-random sampling, finding respondents walking through town, walking to their farms or by visiting them at home. I followed up with eight focal group discussions.

I spent the first two weeks interviewing men and women individually, and the third week with key informants and focal groups of each sex responding to the responses from the previous weeks. I interviewed the primary school Science teacher and secondary school Civics teacher, individuals responsible for teaching methods of birth control and family planning. I spoke with a secondary school Form 4 student to gain a student's point of view on the education of family planning in both primary and secondary school, see Appendices 2 and 5. I spoke with the Village Official and nurse on staff in the local dispensary, see Appendix 3 and 4 for detailed questions, gaining greater insight into the demographics of the region and the access and use of Western birth control methods.

I analyzed my data using comparative statistics such as t-tests and rank tables in order to begin to uncover the community's perceptions of high rates of childbearing for both men and women in the community, what methods may be being used to combat them, the influence of each sex on that decision, and the relationship between those principles and the greater community in Kizanda.

Results and Discussion

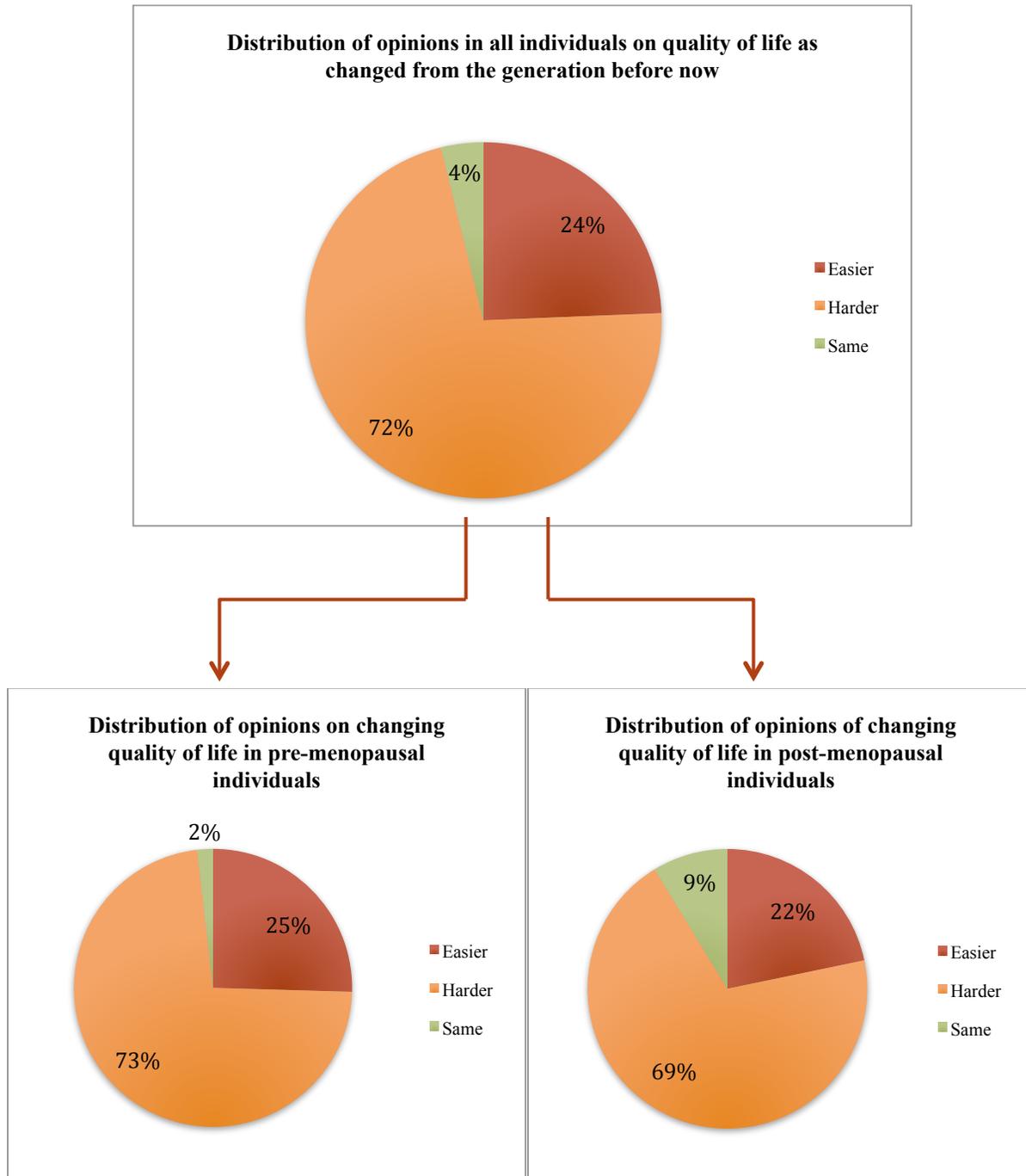


Figure 2. This data reflects respondents' (n = 102) answers to interview questions collected from April 5th to April 23rd, 2014 in Kizanda Village, Tanzania. Respondents were selected non-randomly and participated in semi-structured interviews.

Out of all the individuals, 72% thought that life now was harder than it was a generation ago, 24% thought it had gotten easier and 4% thought it had stayed the same. There was no significant difference ($p = 0.876$, $\alpha = 0.1$) between pre- and post-menopausal perceptions of how quality of life was changing such that both generations were in consensus that now is more difficult. The harder lifestyle is attributed notably to the increase in the price and expense of things, especially the added cost of education. Others blame the financial system more broadly saying that before they were able to provide everything they needed themselves, but now have to rely on an income to support their families. Many said the increase in hardship could be attributed to the decrease in crop output. The lower harvests are said to be caused by lack of rainfall or changing weather patterns that cause food and cash crop production to decrease. There is some evidence that the climate has become drier in the region in recent decades.³⁰ Some connected the decrease in basic needs to the increase in population.

Those that thought life had gotten better since the time of their parents accredited it to the introduction of cash crops and the fact that things sell for more now, increasing income to the individual. Others said that education was now available making necessary knowledge accessible and able to help the current population.

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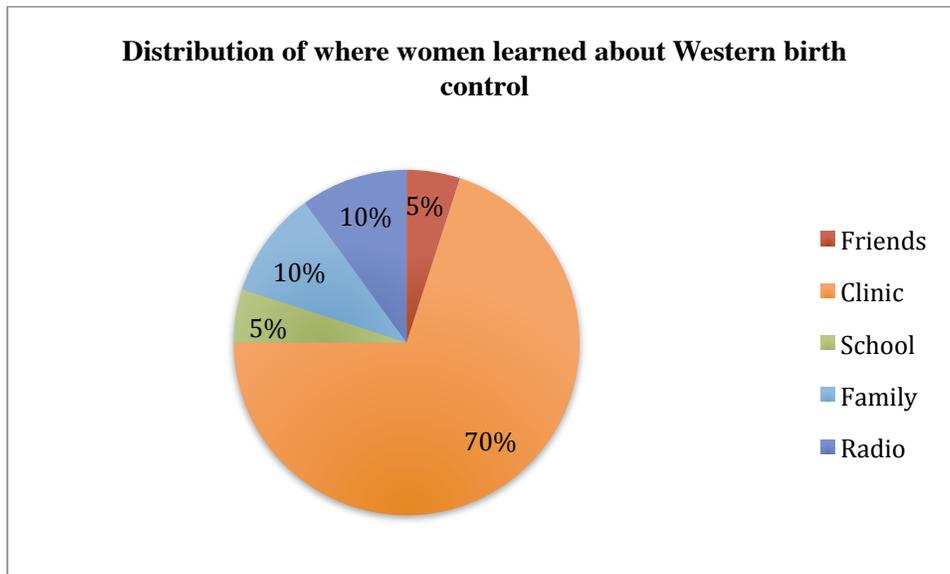


Figure 3. This data reflects respondents' (n = 19) answers to interview questions collected from April 5th to April 23rd, 2014 in Kizanda Village, Tanzania. Respondents were selected non-randomly and participated in semi-structured interviews.

A large majority of women who use Western birth control said that they learned about it from the clinic or dispensary. In the Kizanda community, there is heavy emphasis placed on the bearing of the first child. Women noted that this stress was due to a woman's need to demonstrate that she was capable of bearing children. Thus, the family usually does not teach girls about methods of birth control until after her first pregnancy. Many voice that they learned about Western birth control from the nurse during their visit to bear their first child.

An interview with the Science teacher at the Mayo Primary School, Mgoshim Kuu, revealed that students do learn about family planning and birth control in Standard 7 (average age of 13 years).³¹ They cover the benefits of spacing out children, only having the number of kids the couple can agree on and support and the advantages and disadvantages of both local and Western methods. Do to the required attendance of children to primary school; the hope is that nearly all kids will receive this introduction to safe childbearing practices. However, in the Mayo Primary School there are currently 154 students enrolled in Standard 1 and only 74 students enrolled in Standard 7.³² If the birth rate is assumed to not have doubled in the seven-year period, then there is a significant number of students that aren't making it to Standard 7. Mr. Kuu as well as the Head Master of the primary school noted that this is because many families require their children to remain at home to help or because the cost of education has become too great.³³³⁴

Another obstacle facing the teaching of family planning is the young age at which the students are being taught. With Standard 7 being the last required and guaranteed year of schooling, it is the latest opportunity for the school system to ensure that they are getting the information to as many students as possible. But Mr. Kuu explained how the young age of the students causes them to be unfocused, giggly and detached from retaining the information.³⁵ Sambo, a Form 4 student (the final year of secondary school) at the Kizanda Secondary School said that the material covered in secondary school is not much different than that taught in primary school, but she believes secondary school students are more likely to employ family planning methods because they are learning it for a second time and they are of a more mature age that allows them to retain the information to a greater extent.

Thus, even with the efforts being made to introduce notions of family planning in school, women are predominantly learning effectively about Western birth control from the local clinic years later.

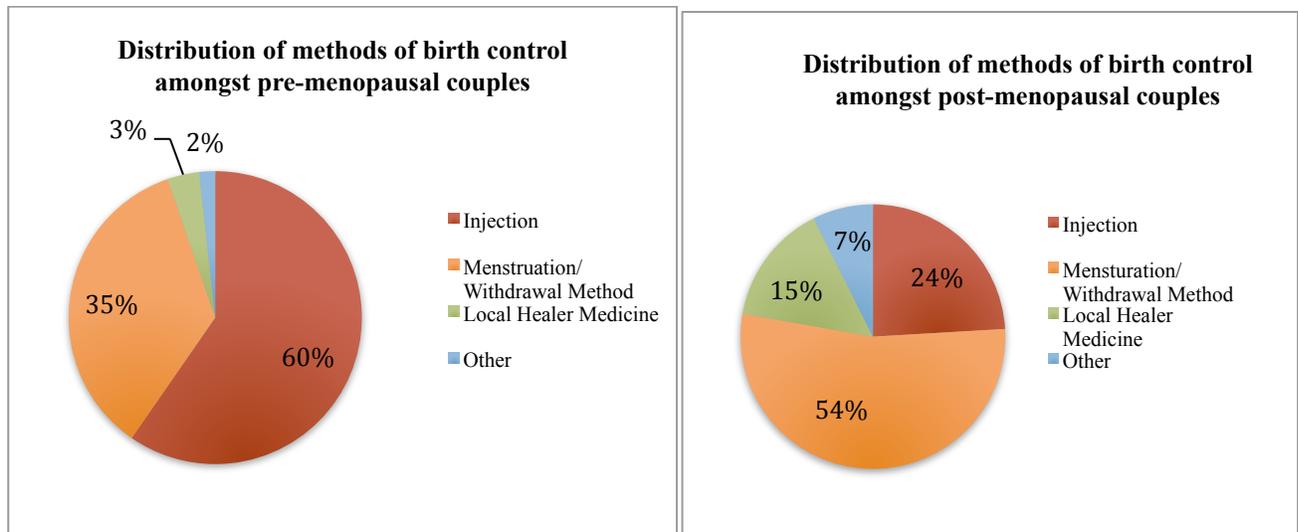


Figure 4. This data reflects respondents' (n = 102) answers to interview questions collected from April 5th to April 23rd, 2014 in Kizanda Village, Tanzania. Respondents were selected non-randomly and participated in semi-structured interviews.

There was a range of different methods of birth control used amongst both generations of individuals. As stated before, the injection has become the most popular Western contraceptive amongst women. It provides a much greater degree of protection against unwanted pregnancies compared with local methods and only needs to be administered every three months. It does have the potential for side effects, most frequently reported being back pain, and its capacity to considerably reduce the potential for unplanned pregnancies allows partners to have unconsensual sex without consequence.

The menstrual/withdrawal method is a historical method taught by bibis and babus to their grandchildren. This method consists of women closely monitoring their menstruation cycles and avoiding sex or requesting that their husbands pull out when engaging in sexual intercourse during certain days in which they are considered most fertile. It is a method that has merit when used correctly and carefully, understanding that the progression of each woman's cycle will be unique to her. The important or "danger" days within the cycle reported by individuals included days of menstruation and the ensuing few days, ranging from the two to six days after the end of bleeding. Fear of fertilization was diminished approximately on or before the tenth day of the cycle. This theory does not align with the Western view; the days of ovulation lying approximately ten days after the end of the woman's period. Thus, the local view suggests that women are safe from pregnancy at the point at which the Western view states they are actually the most fertile.

Some rely on medicine from a local healer that they drink, eat or wear during sex. Others said that their periods would stop during nursing or for years after giving birth such that their bodies allowed time for them to care for their newborn before restarting menstruation.

The data demonstrates that there was a 36% increase in the use of Western birth control in Kizanda over the course of the last generation. This increase can be attributed to the introduction of Western birth control to the region, the subsequent subsidy by the Tanzanian government and the increased desire for fewer children. When asked about this large increase in focal groups, there was general consensus across all focal groups of both genders that the transition from historical methods to Western methods is due to their lifestyle becoming increasingly more difficult.

When asked in greater depth about why a harder life leads to an increase in the use of Western birth control all groups spoke to the relative ineffectiveness of local methods compounded with the desire for fewer children.

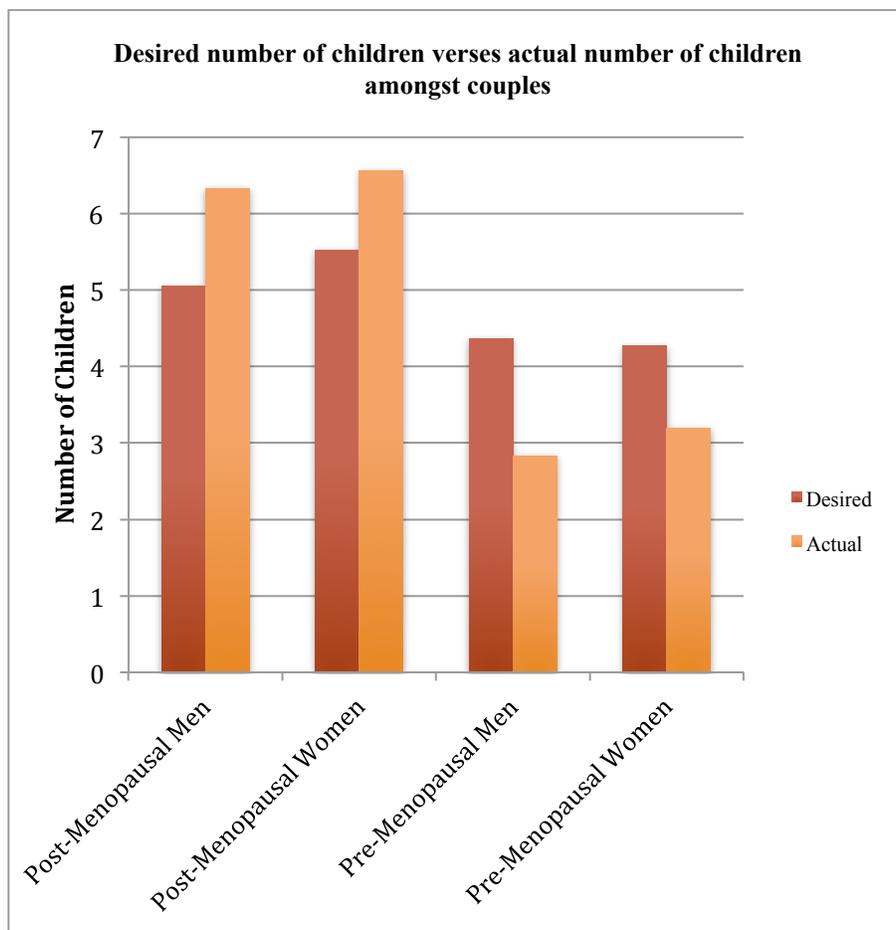


Figure 5. This data reflects respondents' (n = 102) answers to interview questions collected from April 5th to April 23rd, 2014 in Kizanda Village, Tanzania. Respondents were selected non-randomly and participated in semi-structured interviews.

The difference in number of desired kids between genders overall was not statistically different ($p = 0.5662$, $\alpha = 0.1$) suggesting that the environmental factors that contribute to desired number of kids impacts both sexes. Pre-menopausal individuals most commonly reported that their decision over the number of kids wanted was determined by the high price of education. Others said that they wanted the number of children stated because that was the number they were able to provide basic needs for or support based on their cash crop production. Post-menopausal individuals who wanted many kids responded most frequently with their need for assistance now, most commonly on the farm, or in the future when they have gotten older and require care. Many men expressed factors that determined their number kids to be that they wanted to increase the probability that their kids would be successful and capable of coming home to take care of them. Both men and women refuted this notion in focus group discussions, however, saying that this method actually decreased the number of children that would return home to help. For many, having too many kids results in sparse resources, such as money for education, care from the mother or the provision of basic needs, making it unlikely that they will firstly, be successful, and then, committed to the welfare of their parents compelling them to return to support them later.

Post-menopausal couples said, had they been able to control the number of kids they had using Western methods during their menstruating years, they would have had on average 5.3 kids (range 2-11). Pre-menopausal individuals wanted on average 4.3 kids (range 1-10), statistically significant fewer children than post-menopausal individuals ($p = 0.0575$, $\alpha = 0.1$). This decrease in desired number of children correlates with notion that quality of life is decreasing. Thus, in Kizanda Village, desired number of children is inversely proportional to the rise of environmental stressors. However, as demonstrated in Figure 5, actual number of kids is often not reflective of desired number of kids.

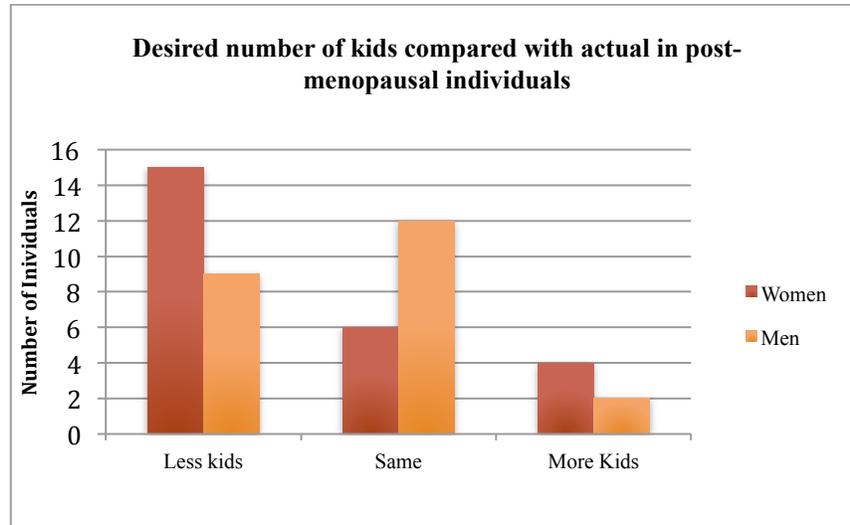


Figure 6. This data reflects respondents' (n = 52) answers to interview questions collected from April 5th to April 23rd, 2014 in Kizanda Village, Tanzania. Respondents were selected non-randomly and participated in semi-structured interviews.

There was no statistical difference between the number of kids had by post-menopausal females and post-menopausal males. Sixty percent of post-menopausal women wanted fewer children than they had while only 36% of post-menopausal men wanted fewer children. Forty-eight percent of post-menopausal men wanted the same number of children that they had. This data is perhaps reflective of the more elastic relationship to number of children experienced by women. Men are for the most part in charge of generating income and working a job. Perhaps they are more easily satisfied with the number of children they have because changes to their lifestyle caused by number of kids would be smaller. Women, on the other hand, are responsible for caring for and raising children. Thus, even one or two additional kids would have large impacts on a woman's life in ways that it wouldn't impact a man's, making her more susceptible to wishing for fewer children.

The ineffectiveness of local methods is attributed by village members to the tendency of couples to violate their method by forgetting, making a mistake, or proceeding regardless of the potential consequences.

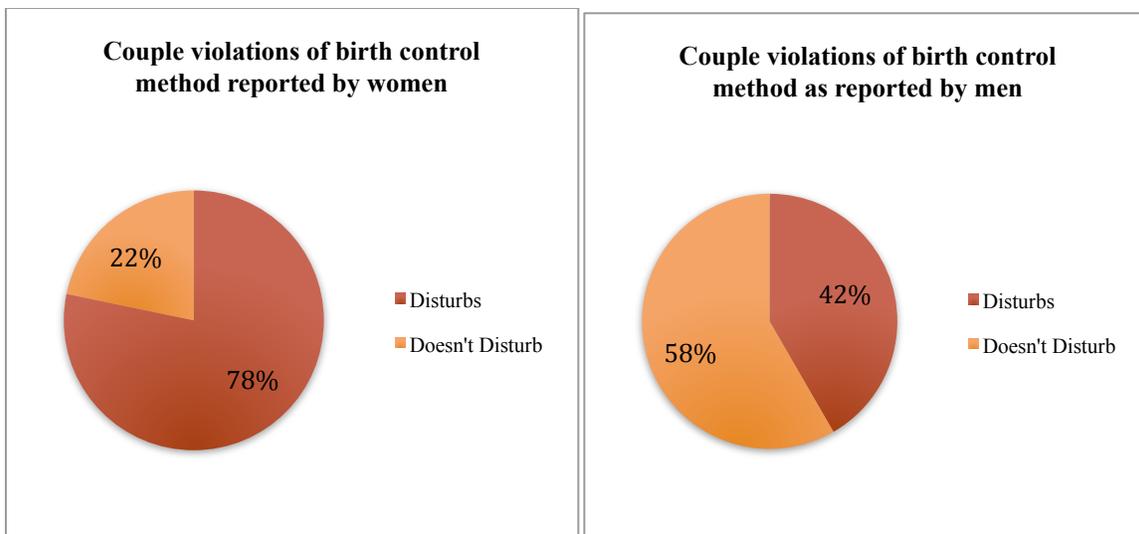


Figure 7. This data reflects respondents' (n = 52) answers to interview questions collected from April 5th to April 23rd, 2014 in Kizanda Village, Tanzania. Respondents were selected non-randomly and participated in semi-structured interviews.

Of the women who used historical methods, 78% reported that her and her husband disturbed their method of birth control while only 42% of males said that he and his wife violated their method. If the graph of male individuals is broken down further to see the generational changes, see Figure 8, only 17% of pre-menopausal males said that they disturbed their method while 71% of post-menopausal males acknowledged that they violated their method. In focal group discussions later, both men and women expressed the fact that only 17% of pre-menopausal men violating their method was low and most likely non-representative, saying the number was actually much greater than that.³⁶

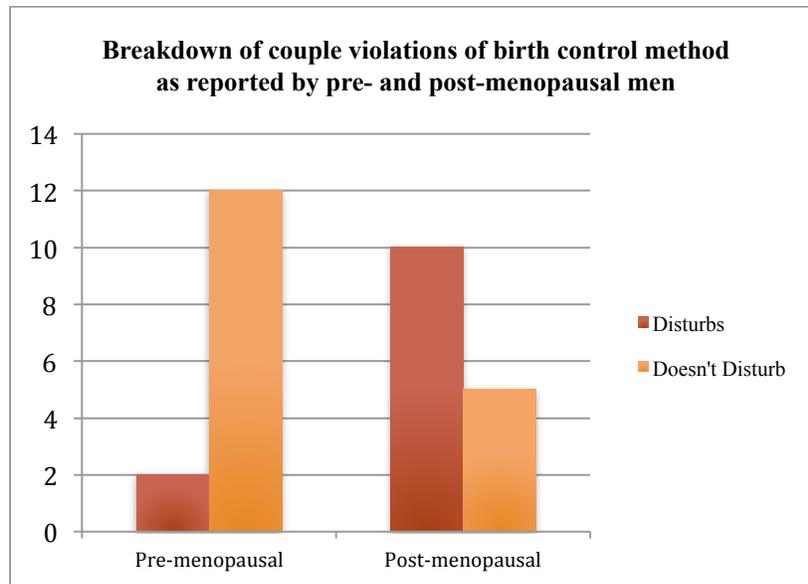


Figure 8. This data reflects respondents' (n = 29) answers to interview questions collected from April 5th to April 23rd, 2014 in Kizanda Village, Tanzania. Respondents were selected non-randomly and participated in semi-structured interviews.

Of the couples that said they violated their birth control methods, 100% of women attributed it to their husbands forgetting, making a mistake or forcing them to have sex. Of the men that responded, 25% attributed the errors to his wife not providing enough information about her menstrual cycle. The other 75% said that it was because he forgot or made a mistake, which was often associated with drinking. Although nearly all of the individuals attribute the issue to the tendencies of men, women are unable to combat the desires of her husband due to the cultural influences of Islam, Christianity and the customs of their historically patriarchal African society.

Thus, the local menstruation method, the most popular historical method, proves to be unreliable for two compounding reasons. The first is that the method taught from generation to generation differs significantly from the physiologically determined method of developed nations, teaching that women are no longer susceptible to pregnancy when they are actually their most fertile. However, even if the more scientifically aligned method was being practiced, the data suggests that the number of unplanned births would not decrease because the method would be violated by a large percentage of couples.

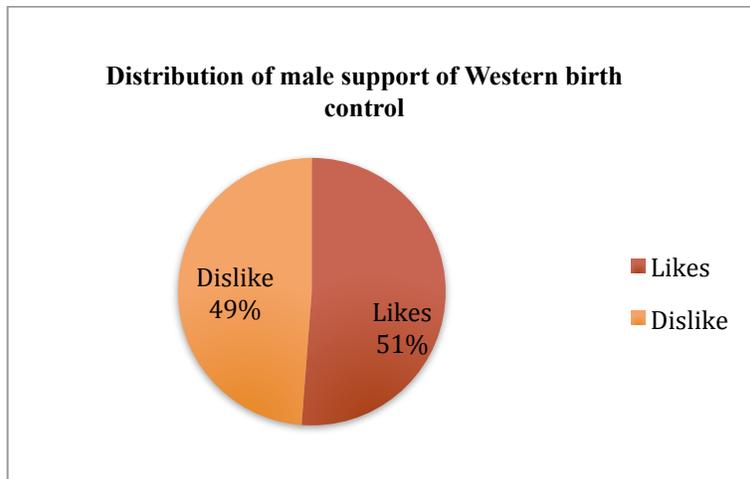


Figure 9. This data reflects respondents' (n = 52) answers to interview questions collected from April 5th to April 23rd, 2014 in Kizanda Village, Tanzania. Respondents were selected non-randomly and participated in semi-structured

But as demonstrated earlier, men do not appear to want a different number of children than their female counterparts, and yet they seem to be far more reluctant to adopt Western birth control as a viable option. Of the men interviewed, nearly half of them disapprove of Western birth control, Figure 9. Many attribute their reasoning to the health hazards created by Western methods. Some thought that the medication itself was dangerous, notions refuted by the local nurse,³⁷ while many attributed the danger to their fear that their wives would fail to follow instructions and make mistakes causing serious health risks. However, the most common form is the injection, which is administered by a trained nurse every three months without any of the medical responsibilities given to the women. Others attributed it to the cost, but all focal group respondents were in consensus of the fact that the cost was minimal and affordable.³⁸ Others said that their method was good enough or even better and thus didn't require Western methods. Some even vocalized their desire to remain in control of the number of kids their wives bear. Village members, even those that continue to use local methods, noted that the firm stance against Western birth control stems from a lack of education.³⁹

A reason that came up in discussion groups, as well as at other points throughout my time spent in Tanzania, is the idea that Western birth control will allow women to cheat on their husbands because they no longer have the threat of getting pregnant. All members of the focal groups debunked this theory. Community members voiced that Western birth control does not act as a contributing factor in a woman's decision to be unfaithful, that determination would have been

made long ago in the development of her character. They said that there was no relationship between the rise in the use of Western birth control and the tendency of women to be disloyal, instead they considered it a method for men to exert control and maintain dominance.⁴⁰

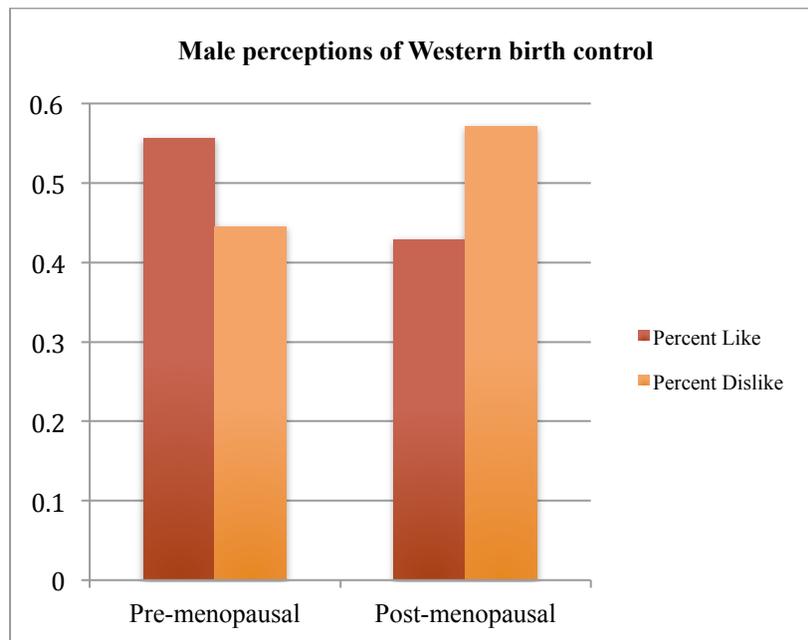


Figure 10. This data reflects respondents' (n = 52) answers to interview questions collected from April 5th to April 23rd, 2014 in Kizanda Village, Tanzania. Respondents were selected non-randomly and participated in semi-structured interviews.

However, positive perceptions of Western birth control seem to be on the rise. Fifty-seven percent of post-menopausal men disapprove of Western birth control while only 44% of pre-menopausal men disapprove. Community members said that the government is trying to implement more training sessions about the benefits of Western birth control and that the younger generation is much more aware of it now that they have started incorporating it into primary school education.

But why is it that women seem so much more willing to adopt Western methods and so much more concerned with the repercussions of unprotected sex? Discussion groups stressed heavily that it is the women that have to bear the burden of more children.⁴¹ Normally, women are responsible for many tasks around the household including farming, cooking, and caring for children, etc. summing to about 65% of the work for the family. On the other hand, men are responsible for farming, generating income and caring for those that are sick. However, in families where the father is a drinker, nearly all of the tasks of the man get transferred to the woman as she is

forced to compensate, increasing her responsibility to eighty or even ninety percent. When asked how often families have a baba that's a drinker, village members said that the majority of babas in the village are drinkers. They vocalized that a man's desire for pleasure and sex, both in the presence and absence of alcohol, often usurps his rational thought connected to their previously agreed upon decisions surrounding family planning.⁴² Thus, his lesser responsibilities and lower potential for consequence lead to feelings of nonnecessity surrounding Western birth control.

Because the reasons noted above are becoming far too burdensome, in the last few years more women have started taking it upon themselves to seek out Western methods of birth control, often without their husbands' consent. Village members also emphasized this increasing tendency of men to resort to alcohol not only increases the current burden on the woman but also causes an increase in the likelihood of mistakes during sex or prevalence of unconsensual sex creating potential for an even greater burden for the women in the future. Women say that the number of mamas receiving Western birth control regardless of their husband's prohibition is increasing at a rapid rate. Women who use Western birth control are encouraging friends and family, supporting them through trips to the clinic and helping them to navigate the secrecy that comes with doing it behind their husband's back. Given their difficult lifestyles, too many children seems to pose too great a threat for these women and their children they are already trying to support. Women are coming together over their common frustration and hardship, taking it into their own hands to dictate their lives and undermine the historically patriarchal system.

There are many issues facing the task of slowing the population growth rate in low-income developing countries with communities like Kizanda. In reality, the number of kids people are having may not be representative of the desired number of kids but rather reflective of a male dominant culture. The problem is deeply rooted in the intensely limiting and patriarchal society such that men are able to dictate both how many children women are having and devolve responsibility of raising those children onto the women as well. One hypothesis is that many men in Tanzania have little control over the trajectory of their situation or contributing environmental stressors, and so resort to being forceful with the woman in their lives as the one of few things they are able to control. Women in Kizanda appear to be beginning to resist this male dominance now that life continues to become harder. And this refusal to accept the actions of their male counterparts seems to be spreading amongst women, gaining momentum as more women participate, perhaps demanding a cultural change.

However, this deeply engrained cultural structure is not something that can be rapidly transformed. With the population expected to double in seventeen years, the urgency behind getting the population under control far exceeds the rate at which women might be able to change the social framework. In the mean time, Western contraceptives may be able to improve the lives of women, as well as all Tanzanians, by limiting the number of kids families have to a supportable level as well as slowing the rising pressure on already limited resources. Then, if the population growth rate is able to slow, the resources allocated to human capital would be more likely to be proportional to the number of people in Tanzania. Getting the population under control will hopefully relieve pressures on social services, land availability, resource management, conservation and perhaps improve the agency of men eventually allowing for an increase in gender equity.

Limitations and Recommendations

Despite careful, neutral question crafting and discussion with the translator, the exact wording of questions may have been lost in the lack of direct translation. In the translator's attempt to get respondents to understand the intent of the question, questions may have become leading or other biases may have been included that were unintentional. In addition, late into the study it was found that respondents were being asked if they were still having children rather than if they were still on their period, altering some data in favor of the older generation. Many of the respondents incorrectly categorized were found and their answers clarified; however, some individuals who said they were done having kids might actually be still physiologically capable and thus susceptible to unreliable birth control methods.

Recommendations for future studies include long, in-depth conversations with translators about the questions as well as the repercussions of providing too much information when asking the questions.

Another limitation of the study was the number of individuals interviewed. There is potential for the sample to be non-representative of the entire Kizanda community.

Recommendations for future studies includes larger sample populations that are carefully selected from all parts of the community, without focusing on certain areas of the village.

Another recommendation for future studies would be to look at the correlation between chosen method of birth control and years of education to determine whether or not education could serve as a reliable solution.

Future studies could also examine the influence of alcohol to the region. With its recent introduction, alcohol has had widespread impacts and is often associated with unconsensual sex or poor decisions. Looking at how alcohol has begun to contribute to the high population growth rate would be insightful to determining the trajectory of Kizanda's population.

Conclusion

Kizanda village is indeed undergoing massive population growth. Nearly all individuals want fewer kids than are the region's average and many had more kids than they wanted. The leading cause of fewer desired kids is the increasing hardship in the region. However, rates of childbearing cause a couple's actual number of kids to often be higher than desired. The data gathered suggests that this discrepancy is often due to the unwillingness of men to comply with local methodologies and flaws in the local methods themselves. The highly patriarchal society limits women's accessibility to means such as Western birth control that would remain viable regardless of the husband's insistence on sex.

Overall, the study suggests that the high population growth rate is ultimately due to the intensely patriarchal Tanzanian culture that creates a low agency of women and a role for men that doesn't include an emphasis on raising children. Women seem to be beginning to change this deeply engrained cultural structure. With the population expected to double in seventeen years, however, the urgency behind getting the population under control far exceeds the rate at which women might be able to change the social framework. The openness to the use of Western birth control seems to be increasing in communities such as Kizanda and could act as part of an interim solution. The sentiments of mamas combined with efforts of the Tanzanian government to slow population growth have increased the level of education administered and available concerning Western birth control. Because of the exponential nature of the rising population, it is next to irrational to think the population is capable of decreasing any time soon. But, with commitment by all parties involved and a movement towards the use of Western birth control and increased gender equity, Tanzania can hope to slow the rate at which it is rising to relieve some of the mounting stresses.

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