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Local Perceptions of Population Growth: The Causes and Effects of Local and National Population Changes on the People of Kenya

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Local Perceptions of Population Growth:
The Causes and Effects of Local and National
Population Changes on the People of Kenya

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School for International Training
Kenya: Health and Community Development
Spring 2012

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Abstract

In the early 1990s, Kenya held the record for highest population growth rate in the world, with greater than four percent per year (Van Der Veen 2004:243). Kenya's population broke 40 million by the year 2010 and is still expanding (World Bank Group 2010). This rapid growth in population has brought many changes to the country, creating pressure on land and other resources. A large rural-urban migration has left Kenyan cities faced with a shortage of space, high unemployment rates, and rapidly expanding impoverished slums. This study seeks to construct an understanding of how Kenyans have witnessed evidence of population growth in their own lives and in the lives of those around them. The focus is on population growth's effect on health care and education, as perceived by Kenyans. This project also examines how population growth has affected the religious community, examining changes in the congregations and religious beliefs of various Christian denominations. A final objective of this project is to examine the factors that Kenyans believe account for the growth in population, both in local areas and nationally. Interviews were conducted with 29 health workers, teachers, and religious figures in Kisumu and Nairobi. Findings support that Kenyans have witnessed much change in the land, environment, amount of space, and size of towns and cities all across the country. Schools and health facilities are overcrowded and a lack of appropriate funding has led to shortages in space, staffing, and supplies. Church congregation have also grown dramatically and Christian leaders of many denominations are now open to and supportive of the use of family planning. Noting several reasons for the country's growth, some Kenyans remain positive for the future, while others fear increasing consequences of an expanding population.

Introduction

The world's population has dramatically increased over the last century. In 1991, more than seventy leading population and environmental organizations in the United States signed a "Priority Statement on Population Growth" claiming "there is no issue of greater concern to the world's future than the rapid rise in human population" (Bandarage 1997:34). Trends in population growth are not consistent around the world, with much of the rapid growth occurring in impoverished countries. Asoka Bandarage notes "90% of global population growth is now taking place in the Third World and estimates are that by 2025 the 'developed' world will make up 15% of the total global population while 'developing world' will account to 85%" (1997:48). Today, Africa has the world's fastest growing population with a growth rate of 2.9 percent. At the present rate of population growth, it is projected that "Africans will constitute more than a quarter of the world's population by the latter half of the twenty-first century" (Azevedo 1993:8).

Kenya, in particular, has one of the fastest growing populations in the world. In the early 1990s, Kenya held the record for highest population growth rate in the world, with greater than four percent per year (Van Der Veen 2004:243). Observing trends in Kenya's population growth between the late 1970s and 2000, this rapid increase is evident. In 1948, following World War II, Kenya's population was just 5.25 million (Ominde 1988:104). A chart in Kenya: The Quest for Prosperity reports Kenya's population at 16,044,710 people in the year 1979. This figure rapidly increases to 23,718,052 people by 1989, and is nearly 34 million people by the year 1999 (Miller and Yeager 1994:63). A 1993 prediction of the trend in population growth estimates that Kenya's population will rise to over 60 million by the year 2020 (Azevedo 1993:8). A more recent report produced by the World Bank shows that Kenya's population broke 40 million by the year 2010 and is still expanding (World Bank Group 2010). Despite this rapid growth, Miller and Yeager report that Kenya's percentage of population growth has been slowly decreasing since the late 1970s (1994:63). The World Bank reports that Kenya's annual population growth rate has remained fairly

constant at 2.6 percent in the first decade of the 21st century (World Bank Group 2010, See Appendix II).

Despite recent steady population growth rates, the proportion of young people, both in Kenya and in other developing countries, has grown rapidly. According to U.N. projections, “less developed” countries had 52.7% of its population in the 0-14 age category and only 8.3% in the over 65 category by the year 2000 (Bandarage 1997:49). As of 1993, more than fifty percent of Kenya's population is below the age of fifteen. In line with this trend, the number of school children in Kenya has been steadily increasing since the 1980s. Assuming constant fertility and mortality rates, which is unlikely given that mortality rates have been decreasing in recent years, S.H. Ominde projected that the number of primary school children in the country broke eight million by the year 2000 (1999:38, See Appendix III). As of 2010, Kenya had 9,425,390 children attending primary school, a dramatic increase from the 3,607,000 primary school children in Kenya in the year 1980 (Oparanya 2010:26). This phenomenon presents new challenges with ensuring a proper education for the expanding youth population. Additionally, this growth will “place huge burden upon Kenyans of working age to support the majority” (Azevedo 1993:9).

S.H. Ominde acknowledges that the root causes of population growth “are now accepted as sustained high fertility characterized by low levels of contraceptive use and decline in foetal wastage” (1998:102). He further emphasizes the “most important factor in the explosive growth of Kenya's population has been mortality trends, especially infant mortality”, which have shown to be rapidly declining since the 1948 census (Ominde 1988:104). A decline in fertility rate can be witnessed in many countries following the World War II era. Fertility rate per woman has actually fallen below replacement level in most industrialized countries, with the United States' slightly higher number attributed to immigration (Bandarage 1997:48). This trend has not been observed in sub-Saharan Africa, however, and the typical African family is large and has many children. Although there has been an increasing population shift to urban centers, such as Nairobi, where land

and resources, financial and natural, are at a premium, many families remain quite large. The typical African woman has an average of six children in her lifetime, compared with 3.5 children for Asian and Latin American women (Azevedo 1993:8). In Kenya, the average maternity rate is about 4.6 children (2.9 in urban areas) compared with 2.2 children in the United States (Dr. Karama February 28, 2012).

Mario Azevedo proposes an explanation for historically large African families, noting that “Africa's family traditions are deeply rooted in the notion that procreation is the ancestral link between past, present, and future generations” (1993:8). Historically, contraception and sterilization have been widely shunned by Africans fearful of being unable to continue their family lineage. John and Pat Caldwell have gone so far as to say that the “core of African society is its emphasis on ancestry and descent” (Azevedo 1993:8). S.H. Ominde attributes the continued preference for African women to have large families as “due mainly to slow socio-cultural changes in the fertility habits of the populations”, as well as other factors like universality of marriage, early age at marriage, and early age at first birth (1988:38).

Ndegwa et al. stresses that “the cost of very large families – to household security, to national provision of services and production of adequate food, to women's participation in society, to material and child health- must be presented clearly, intelligibly, and credibly” through universal education in order to enact any substantial change (1985:247). The United States Agency for International Development (USAID) argued that rapid population growth “consumes all other economic gains” and, under the Clinton Administration, sought to increase support for global family planning as the most “cost-effective intervention” to foster sustainable development (Bandarage 1997:41). Termed the “Contraceptive Revolution”, initiatives to increase the use of family planning methods have shown to be effective, as “contraceptive use in the 'developing world' has increased from less than 10% of couples of reproductive age in the 1960s to more than 50% [by] the 1990s” (Bandarage 1997:64).

Still, growth in population, paired with a scarcity of land suitable for farming, has created increasing pressure on land and other resources. As of the mid-1990s, more than eighty percent of the population was inhabiting less than twenty percent of Kenya's land mass (Miller and Yeager 1994:2). Because farming methods stayed largely unchanged in the latter half of the 20th century, population growth meant that more and more areas of land had to be used for cultivating crops. As much of this land was not previously used for farming and was not fertile, it became increasingly difficult to make a living. As rural areas became more impoverished as land for farming became scarce, young people saw no future for themselves in the countryside (Van Der Veen 1994:245). In a massive rural to urban migration, many young people moved to urban areas where they believed work would be plentiful. As a result, much of Africa's population growth has been concentrated in cities.

While Africa's population has more than tripled since the 1960s, “the combined population of Africa's capital cities has increased more than tenfold” (Van Der Veen 2004:245). In 1950, only 10% of Africans were living in urban areas, but as much as 40% of Africans lived in these areas by the year 2000. Roel Van Der Veen explains that as cities expanded, natural growth of the urban population became a more important factor than migration from rural areas (2004:247). The first generation of rural immigrants brought with them the family patterns they had grown up with and people newly settled in urban areas continued to have large families. Another factor that contributed to the rapid growth of urban centers was civil wars that caused refugees and displaced persons from neighboring countries to pour into cities in search of safety and security (Van Der Veen 2004:247). Eventually, urbanization did start to slow population growth and families started having less children.

As the urban population expanded, the number of jobs available was not enough to support the growing youth population. Ndegwa et al. has stated that “Africa is facing a crisis of unemployment” (1985:71). Many young, educated people are not able to find formal work

following schooling. As a result, “people were forced to enter the labor market through the informal sector, and try their best to make a living on their own, as the government and formal private sector were creating very few new jobs” (Van Der Veen 2004:256). The unemployment problem does not seem to hold an easily implemented solution. Ndegwa et al. notes that “as the labor force of 15 years from now is already alive today, we cannot therefore expect success in population problems to help in alleviating the employment problem in the foreseeable future” (1985:74).

As noted above, Kenya and other countries in sub-Saharan Africa have felt the environmental implications of population growth. A great majority of Africans depend on the burning of charcoal and wood as an energy source. As a result of deforestation and soil erosion, due to land cleared for farming and settlement, these resources have become increasingly difficult to secure. Kenya's growing population is facing not only a shortage of fertile land, but a lack of resources to ensure a consistent fuel supply (Van Der Veen 2004:249). Furthermore, explosive population growth, and the mass migration to urban centers, has resulted in a growing number of health inequalities and subsequent problems, including malnutrition, infectious disease, and lack of access to basic needs, like health care (Ominde 1988:105). K.L. Michaelson argues that “overpopulation is not a matter of too many people, but of unequal distribution of resources. The fundamental issue is not population control, but control over resources and the very circumstances of life itself” (1981:3).

Population growth has had clear implications on the people of Kenya, affecting geographical distribution, the environment, poverty, employment, education and other areas. However, despite government and World Bank statistics demonstrating the drastic surge in population size in Kenya over the last several decades, these figures do not necessarily profoundly contribute to Kenyan's perceptions of population growth on the family and individual level. Other factors, such as religious and cultural beliefs and values, may play a more significant role in determining how many children Kenyans have and their reaction to observable changes in population size. As discussed above,

historical, religious, and cultural emphasis on large family size may still contribute to population growth today. Miller and Yeager have noted that the “leading African clergy, the Anglican Church of the Province of Kenya (CPK), the Presbyterian Church of East Africa (PCEA), and the Roman Catholic church exert powerful moral and political influence” in Kenya (1994:92). Furthermore, the religious community has had a history of influence on and support of hospitals, clinics, and schools. One estimate suggests that more than fifty percent of the population of Kenya professes some form of Christian faith, although this figure is speculative and could be even higher today (Miller and Yeager 1994:91).

In order to gather information and data on perceptions of population growth and possible changes in Kenyan life as a result of this growth, an observational study was conducted through field interviews with adult Kenyans in Nairobi and the Kisumu area. Religious figures in various Christian denominations are interviewed to explore the relationship between religious views/doctrine and population growth. Kenyans in the education and health field, such as primary school teachers, nurses, and public health workers, are interviewed to gain a broader perspective on perceptions of population growth. These professionals are interviewed as they may have more direct experience in witnessing population change through an increase in children's educational needs or increased demand on health care workers and facilities. Both Nairobi and Kisumu are home to several schools, health care facilities, and a highly prevalent and varied religious community. Additionally, their large urban settings bring in people of diverse backgrounds from all over the country.

The first objective of this project is to construct an understanding of how Kenyans have witnessed evidence of population growth in their own lives and in the lives of those around them. This is done through the collection of brief life histories and change narratives, emphasizing differences in urban areas where subjects are currently residing and their rural homelands over the past several decades. The second objective of this project is to report how population changes have

affected different aspects of Kenyan life. The focus is on population growth's effect on health care and education, as perceived by Kenyans. This project also examines how population growth has affected the religious community, examining changes in the congregations of various Christian denominations.

A third objective is to explore how people in Kenya are responding to population growth and how different organizations, churches, schools, health centers, etc., are working to accommodate a larger number of people. This study seeks to understand what challenges population growth has placed on education and health care. The ways in which religious groups are providing for their congregations is also examined. Additionally, this project seeks to understand religious views towards population growth, both through formal religious doctrine on matters of population control and family planning and through individual's personal beliefs, which may or may not align with religious doctrine. This objective includes the observation of any changes and adaptations in doctrine and beliefs. A final objective of this project is to examine the factors that Kenyans, on an individual level, believe account for the growth in population, both in local areas and nationally. This includes the reasons for this increase in people (immigration, birth rates, etc.) and whether population changes are ultimately positively or negatively affecting the country.

Setting

All field work was conducted in Kisumu County and Nairobi, Kenya. Kisumu is a port city in western Kenya located in Nyanza Province on the edge of Lake Victoria. Its population is predominantly Luo. Nyanza Province has a total population of 5,442,711 (Oparanya 2010:16). With an overall county population of 968,909, Kisumu is the third largest city in Kenya (Kenya National Bureau of Statistics). The age distribution of Kisumu County is as follows: 43.5% are 0-14 years, 53.3% are 15-64 years, and 3.2% fall in the 65 years and older category (softkenya.com¹). Nyanza

¹ Given the limited time frame of this study, government ministries could not be reached for official population statistics. Softkenya.com was used as a supplemental source, when data could not be found elsewhere.

Province has 1,513,952 children in primary schools (Oparanya 2010:26). As of 2010, there are 112,339 enrolled primary school children in Kisumu District (Kenya National Bureau of Statistics). There are 71 recognized primary schools in Kisumu County and public schools face a teacher to student ratio of 1:51. Private schools in the county have a lower teacher to student ratio of 1:30. Kisumu County is home to one provincial hospital, one district hospital, three sub-district hospitals, 53 dispensaries, and six health centers (softkenya.com).

Field work was carried out primarily in Kisumu Town and the surrounding neighborhoods. Interviews were conducted in churches of a variety of Christian denominations – Catholic, Anglican, Seventh Day Adventist, Gospel, etc. Interviews were also carried out at both public and private primary schools in Kisumu Town. Additionally, interviews were conducted at a district hospital in Kisumu and with nurses from the hospital working in other settings in the city. A small number of interviews took place at a day school/ orphanage, clinic, and Legio Maria church in Nyalenda, a slum outside of Kisumu Town. Estimates place the population of Nyalenda at 368,00 residents (23²). The orphanage/ day school and clinic serve residents from Nyalenda slum and many rely on this clinic as their primary source of health care. Finally, interviews were conducted at two private schools and a health center in Rabuor, a poor rural town roughly 15km outside of Kisumu Town. Small businesses and money from work in Kisumu Town contribute greatly to the economic situation in this area.

A smaller amount of field work was carried out in Nairobi, Kenya's capital city. With a county population of 3,138,369 people, Nairobi is the largest city in the country (Oparanya 2010:22). The age distribution of Nairobi County is as follows: 30.3% are 0-14 years, 68.5% are 15-64 years, and 1.2% fall in the 65 years and older category (softkenya.com). As of 2010, Nairobi Province has a total of 347, 024 children in primary schools (Kenya National Bureau of Statistics). For the county, the teacher to student ratio in public schools is an astounding 1:1,539, while private

² All interviews have been assigned a number for reference and, due to frequent usage, are cited by that number throughout the paper (see Sources Consulted, Interview List).

primary schools hold a much lower teacher to student ratio of 1:15. There are three district hospitals, two referral hospitals, 156 dispensaries, 71 health centers, and 144 medical clinics in Nairobi County, although this number changes rapidly (softkenya.com). There are also several nursing homes, Voluntary Testing and Counseling centers (VCTs), and a number of other health facilities in the county.

All field work in Nairobi took place within the city limits. Interviews were conducted at both public and private primary schools and a Pentecostal church. All field work in Nairobi was carried out in the estates surrounding Kibera, an informal settlement, or slum, of between 700,000 and 1,000,000 residents. Many members of the church congregation are from Kibera and a large number of the students from the public primary school are from Kibera and other informal settlements in Nairobi. This factor contributes to the varied socio-economic background of students attending the primary schools and members of the church.

Methodology

This project was carried out through semi-formal interviews in a variety of settings. In total, twenty-nine interviews were conducted over the course of the ISP period. Twenty-five interviews took place in Kisumu and its surroundings, while four interviews took place in Nairobi³. Interviews were conducted with both men and women, in a variety of professions and with a mix of religious, tribal, and other cultural backgrounds. All but one interviewed was over the age of 25. Eight interviews were conducted with church leaders and members of Christian congregations, consisting of two priests, three pastors, one church elder, and two congregation members. Eleven interviews were conducted with educators and youth workers, consisting of one primary school manager, two primary school headteachers, one primary school deputy headteacher, five primary school teachers, one orphanage and day school director, and one project manager of a youth organization.

³ Geographical imbalance of interviews due primarily to time restrictions in conducting fieldwork in Nairobi upon returning from Kisumu.

Individuals from six private schools, two church funded, and three public schools were interviewed. Ten health care staff were interviewed, consisting of one doctor, one clinic director, two clinical officers, three nurses, one lab technologist, one staff in the Patient Support Center (HIV/AIDS), and one staff in the Records Department of a district hospital.

All but one interview were conducted one on one. One interview was conducted in a small group setting, with two members of the same church congregation supplying information and answers. In all interviews, questions were directly posed to the interview subject, without the use of any handouts or questionnaires. A set of general questions was posed to all individuals being interviewed. These questions asked individuals to examine changes noticed in their current areas of residence and their rural homelands, and whether these changes are attributable to population growth, attitudes towards these population changes, and the reasons for this population growth, locally and nationally. A second set of questions was posed to individuals in the religious community, education, and health care, specific to the background of the person being interviewed (see Appendix I). Answers were recorded and further questions were posed as deemed appropriate given the responses to questions and direction of the interview. Personal observations from churches, schools, and health facilities were also recorded. All interviews were conducted in English. To protect those interviewed and their organizations, all names of informants, churches, schools, and health facilities have been kept private.

Findings and Analysis

A Changing Kenya

Kenyans have noticed dramatic changes happening around them over the past few decades, both in urban areas like Kisumu and Nairobi and their rural homelands. These changes have affected the size of towns and urban centers, the environment, and the people settled in these areas around the country. Nearly every person interview discussed changes in the land around

Kenya. As more people move into new areas, there is a shortage of land for those already living there. In rural areas, a greater number of people has resulted in land fragmentation and a higher population density. Where land has grown scarce, people have migrated out of their homelands and into cities. Today, cities around the country are highly populated and people fight for space to put up houses and businesses. As a result, some families are moving back to their rural areas, where they believe land and resources to be more plentiful (12).

In cities, the last few decades have brought a large amount of growth and expansion. One informant notes that the population in Nairobi is ten times as large as it used to be (6). A teacher from Nairobi sees growth in the city everyday, particularly in the slums (13). Although she believes there is still enough land in Nairobi, she worries about future population growth. In recent years, Kisumu has also expanded tremendously. One informant believes that Kisumu was neglected under the Moi regime, but has really grown since 2002 (7). This is evident in the larger highway system and ongoing construction of new roads in the area (2). One teacher remarks that the city is much cleaner than it used to be and a new airport has contributed to Kisumu's major development in the last 10 years (19). Roads are packed with cars and filled with motorbikes that cause a large number of accidents and were not around before 2007 (24). Before 2008, people had no trouble finding parking spaces in lots, which are now filled from early morning onwards. Commodity prices are higher in Kisumu and people have trouble finding land to build on (27). Kisumu used to be much smaller and one informant notes that “the main road where we came from [to drive into Nyalenda] used to just be bush where antelopes roamed” (3). Another informant remembers when Nyalenda was just a village, while it is now a large slum full of violence and poverty (23). The city has spread outwards and overcrowded slums and residential estates have taken the place of rural villages on the outskirts of town (20). A doctor remarks that five years ago, you could look up to Riat Hills outside of town and see barely any buildings (24). Today, several houses and buildings have popped up on the hill and five years from now, he thinks the hill will be filled.

The environment has drastically changed in recent decades and availability of natural resources has grown scarce in many areas. Some people see no shortage of land for farming, but claim the climate is no longer conducive to a successful harvest (9). Even though Kisumu is next to Lake Victoria, the largest freshwater lake in Africa, there is a shortage of water in Kisumu's slums and other poor areas around the city (12). A private school teacher in Kisumu has noticed big changes in the climate and environment, starting in the late 1990s. In his opinion, there is still land available, but it is used inefficiently. Rivers around Kisumu have dried up in recent years, affecting agriculture and food production, while cutting of Mau Forest to make charcoal has led to problems with deforestation (15). A staff member of an agroforestry foundation in Kisumu remarks that “we have destroyed everything in Kenya” and is even more worried about the changes he has witnessed in the environment (6). He believes cutting in Mau Forest started for political reasons, not because of a shortage of land. Either way, cutting of forests across the country for charcoal, fuel, and timber for construction is having very negative consequences on the environment and rain patterns have changed. He notes that in April in Kisumu, it should be a period of long rains, but is behaving like the short rains (6). While people around Kisumu used to plant in January and February, planting does not start now until April when the rains come. His agroforestry organization encourages farmers to plant trees that can be used for timber and charcoal, so forests are not cut. Overgrazing by cattle has led to resource-diminished land and this informant fears that “catastrophic hunger might crop in” if efficient population controls are not put into place (6).

Although Kisii has better weather and land suitable for farming than Kisumu, extreme scarcity of land has led to poverty and hunger for many people who live there (8). Land has been portioned in tiny plots and people can no longer grow enough to support their families (17). In some rural places, people are moving into the area, not to farm, but to settle and put up homes. Kiboswa's favorable climate and environment have led many families to buy up the land and build houses (18). A registered nurse from the Homa Bay area, two hours outside of Kisumu, recalls the big pieces of

open land around her house when she was growing up (27). No one owned this land and people were able to plant wherever they wanted to. Today, all of the land is owned and has been sectioned off. There was also a time when people did not need to rely on government-stored food. This nurse believes the government owns a lot of land in rural areas that people are not able to access. There are also times when a lot of food is in government storage, but never makes it to the people living hungry across the country. The traditional practice of land inheritance for male relatives can no longer happen as land is less plentiful. Her husband's own ancestral land was split up between eleven siblings and there is now none left. He has been forced to buy land in a different area (27).

In Kibweze, a pastor recalls growing up with hundreds of acres of land around him and no neighbors for kilometers (5). Today, when he returns home, he sees neighbors living less than 100 meters away. This area also receives much less rainfall than it used to. Water is in short supply, as businesses from other areas of Kenya have come in and taken control of water sources. He remembers growing up when water was free and food was plentiful. Today, people have to buy water and pay for firewood to fuel their homes. Families without electricity use charcoal to cook, but this only contributes to forest cutting and environmental degradation (5). In other rural areas, there has actually been a decrease in the number of people. A teacher from Kiambu District notes that there were 700 students at his primary school when he went there, but are just 200 now (11). As more and more people become educated and move out of their rural homelands into cities, very few people are left in some rural areas. Those who do stay are often uneducated and are not greatly contributing to development in their rural areas.

Effects of Population Growth on the People

People in Kenya have not just noticed these changes happening around them. They have been greatly affected by the increase in the number of people and its implications on the country. Overall, the cost of living has gone up in Kisumu and Nairobi. Whereas people could support big

families before, they now have less land and cannot afford to feed all of their children (19). People in rural areas resort to selling off parts of their own land to make money and provide for their large families (2). This land is sold to working class people moving into the area, who can afford to put up homes and businesses (5). As families sell their land, they are left with very little land to farm. In Kisii, families can no longer work their land to provide food for their families and fall into greater financial strain (17). There has been a lot of open land for farming since independence, yet this has not resulted in greater production. Massive land fragmentation has resulted in several people owning small areas of land which cannot produce much (14). Although the number of people owning land has gone up, agricultural production is lower.

Others are forced off their land through road expansion projects and other development plans. In Kisumu, an expanded road system is greatly needed to accommodate a growing number of people traveling through this area. In Rabuor, however, this proposed road expansion will leave many homeless (10). As land has become scarce in this area, many people are settled along this road. With road expansion, their land will be demolished and they will have to struggle to find a new area to settle in. In some rural areas, the influx of new people and groups has caused new problems. In the Turkana area, natives have not greatly increased in number, but other groups of people have invaded the area (26). The new settlers steal from the cattle herds of the natives, leaving them to starve, with no way to feed their families. As rural people can no longer support themselves and their families on smaller areas of land, they migrate to larger areas where they have greater hopes of finding work.

This massive rural to urban migration has left huge numbers of people searching for jobs in Nairobi, Kisumu, and other cities (4). Although some informants believe that job opportunities do exist in rural areas, young educated people do not want to work the farms or do manual labor. Following graduation, they move to cities expecting to find white-collar jobs and a life of prosperity. Other less educated youth expect to find employment, but do not even apply for the

identity cards that allow them to work in cities (7). These young adults seek informal jobs like working for a family member or riding boda-bodas and motorbikes. These untrained drivers cause a huge amount of road accidents and one hospital has an entire ward for victims of motorbike accidents (24). Unemployment, paired with a growing youth population, has left a huge number of young adults, educated and not, left with no opportunities to support themselves (12). One doctor estimates that the unemployment rate is at 60% for young people in Kisumu (24). This generation searches for daily “casual work” to support themselves and many resort to stealing and other petty crime to make a living. Violence among youth has increased in urban and rural areas alike in recent years with youth joining “funny groups” or gangs instead of entering the workforce (6). Other young people rely on handouts from politicians which they receive for a variety of often illegal tasks (12).

Many individuals and families who cannot find work upon coming to the city end up settling in slums, like Nyalenda in Kisumu and Kibera in Nairobi (19). Their life is not better off than when they were in rural areas and they struggle to survive in dirty, crowded conditions. Still, people do not want to return home a failure and choose to settle permanently in slums instead of moving back (19). As population size and poverty have increased, there are larger numbers of street children in Kisumu, Nairobi, and other urban areas (10). Poor families with large numbers of children and no way to provide for them has resulted in children running away from or forced out of their homes. They now beg on the streets to make enough money to feed themselves. High prevalence of HIV/AIDS in the country has left a huge number of orphaned children left without shelter, food, or education. In Nyalenda slum, where the HIV prevalence is 18%, a school was opened for orphans from the area (23). These children are provided free education and three meals a day. In Rabuor, a school is made up of 75% orphans. Still, many more such children in cities and rural areas around the country do not have this opportunity. Overall, population growth has affected almost every area of life for Kenyans across the country. In particular, population changes in Kenya have greatly

impacted health care, education, and religious congregations and their views.

Health Care

Population increase has affected the provision of adequate health services to the people of Kenya. Hospital and health center staff have noticed a significant increase in the number of patients coming in to health facilities around the country. While in January 2009, the district hospital in Kisumu saw roughly 170 outpatients daily, this number has risen to over 300 as of January 2012 (26). In the 1990s, the health center in Rabuor, just outside of Kisumu, served a population of 5,000 people. Today, there are greater than 23,000 people in Rabuor that depend on this health center (29). 2,188 people are enrolled in the HIV/AIDS patient support center, alone (22). Although the expected number of patients seen at a district hospital in Kisumu for 2011-2012 was 71,325, based on past figures, an actual number of 109,500 patients were seen at the hospital over the course of the 2011-2012 fiscal year (26).

The number of births at hospitals and other health facilities has also increased. Although post-election violence causes people to scatter from urban centers, like Kisumu, resulting in a lower number of births at the district hospital in 2008, the overall number of deliveries has been steadily increasing in recent years. In 2011, 2,611 babies were delivered at a district hospital in Kisumu, a significant increase from 2010's 2,149 deliveries (26). Smaller health facilities have also seen an increase in number of deliveries. The health center in Rabuor now provides 24-hour services to accommodate night deliveries. While this health center used to have only five to ten deliveries per month, that number has risen to about thirty (29).

Both staff at the hospitals and health centers in and around Kisumu attribute this increased number of deliveries to effective education and greater awareness of the importance of delivering in a health facility. One nurse estimates that 49% of deliveries in the country now occur at health facilities (20). In rural areas, such as Suba District, where one nurse interviewed used to work, more and more women are coming to health facilities for antenatal and postnatal care. However, many of

these women do not actually return to health facilities when they are giving birth (27). Along with increased health education, other improvements have been made. The number of health facilities, especially in rural areas, has increased rapidly and more and more people have gained access to low-cost health care. Infrastructural improvements mean that health facilities are better equipped and rural clinics have a supply of the same medications found at district and provincial hospitals.

Overall, however, the increased number of patients seen at health facilities around the country has brought a large number of challenges and increasing strain on staff, space, and supplies. A nurse manager from a district hospital in Kisumu remarks that the comfort of the patients has been compromised as there is now a severe shortage of hospital beds and supplies (20). Today, almost every bed in the hospital is doubled up, resulting in more patients for each staff member. While the ideal situation is one nurse per six to ten patients or about three nurses for every thirty beds, sharing of beds has resulted in double the number of patients per nurse. Furthermore, there is a shortage in the number of nurses at the hospital, so it is not uncommon to find one or two nurses trying to care for 60 patients (20). These changes really started affected the hospital in the mid-1990s. The clinic in Nyalenda aims to start providing free anti-retroviral drugs (ARVs) to the HIV+ patients in the area. To do this, however, the clinic would need to hire a new clinical officer with specific training on ARVs and HIV/AIDS. Considering the financial capability of the clinic, this is not currently an option (23). The health center in Rabuor also faces staffing shortages, especially in the lab department. The health center's two lab technologists are constantly overworked and often lack the supplies and equipment necessary to work efficiently and protect their own safety (21).

There is also a constant shortage of gloves and other supplies. At the health center in Rabuor, though drug supply has gone up in the last decade, there is still a greater demand for medication than the supply they receive. A lack of physical space presents another challenge to health facilities. While ideally there is a separate lab room to tests sputum samples for tuberculosis, to protect staff and other patients from getting infected, the health center in Rabuor has no separate

room and does not even have a fume chamber (21). Eight different departments at this health center are squeezed into just three rooms and, due to space constraints, long lines of patients wait outside to be seen. At the district hospital in Kisumu, several new buildings have been constructed since its opening, but more space for beds is needed (27).

Shortage of funding for health facilities has greatly contributed to these challenges. The clinic in Nyalenda is funded by the same American Christian foundation as the day school and orphanage right next door. The clinic opened in 2009 when the organization began to “understand that if they improve the health status of the community, they can improve food security” and the overall quality of life of the residents of Nyalenda slum (23). Currently, this clinic sees about 25 patients per day and its Voluntary Counseling and Testing (VCT) center provides support for HIV+ patients in the community. The clinic struggles with a consistent drug supply as many of its services are provided at a very low cost (under Ksh. 100) or free of charge to the residents. Although this clinic is not government funded in any way, the government has urged the clinic to expand its care to provide 24-hour services to the people of Nyalenda. This would require a doubling in the clinic's funding and is not feasible at this time (23). The health center in Rabuor is supported by the government, but facing similar challenges with funding. During the interview, a clinical officer noted that half of the clinic's ceiling is unfinished because funding for construction ran out (29). Ideally, the health center would own an ambulance to swiftly provide hospital transportation to critical patients that come in. However, no funding for this purchase exists and currently the health center must call an ambulance hotline to pick up the patients (25). Another staff at the same health center complains that he has to use his own money to call the district hospital and request supplies to be sent over (21).

A final cause for concern is the issue of training and education for nurses and other health care staff. There has been a rapid increase in the number of training facilities for nurses and clinical officers around the country. However, due to staffing shortages at hospitals, student nurses receive

minimal supervision which ultimately detracts from their quality of education (20). Despite these nursing shortages, nursing students are not hired after graduation. In the country today, there exists a very large number of trained young nurses and other health workers who are not hired by the government and remain jobless. Furthermore, many of those in the health field do not receive continuous training about the newest advances in the field (29).

Ultimately, health workers believe that, as “health is a human right”, it is the responsibility of the government to ensure that everyone has access to affordable, quality health care (20). The government can be blamed for many of these challenges with staffing and funding. Although some government-implemented changes, like the splitting of the Ministry of Health into two separate ministries, were more political and did not greatly affect health care, other strategies have negatively contributed to the provision of health services (27). Cost-sharing, for example, greatly contributed to a decline in the quality of health care. This program was supposed to split the funding of treatment between the government and the patient. However, the government often failed to foot its half of the bill and services were not reaching the people who needed them most (20). A nurse from the district hospital concludes that the “responsibility of ensuring the hospital has supplies and staff rests with those in the 'ivory tower’”, far removed from the problems poor citizens face when accessing health care (20). Health workers recognize the strain that population growth, paired with insufficient government support, has placed on health facilities and foresee even greater challenges in the future.

Education

A growing population has left its mark on education, as well. This study focused exclusively on primary schools, as a growing number of young people is first felt at the primary school level. Public schools have been greatly affected by changes in Kenya's population. In 2003, with the start of free primary education in Kenya, a huge number of parents enrolled their children at newly

tuition-free government schools. One public primary school in Kisumu was taken over as a government school in 1988 and now has 1,100 students enrolled, though the number keeps increasing (17). While the deputy headteacher feels that this increase in the number of students is positive, as it means more children are getting access to education, the school has faced its share of challenges stemming from the growth. Formerly, as a European school, the largest classroom had 30 students, with an average of 15 to 20 students per teacher. Today, as a government-funded school, each classroom has about 50 students per teacher (17). This has resulted in an extremely high workload for teachers. There are enough desks for all of the students, but there is a consistent shortage of textbooks. Some public schools struggle to meet even a ratio of three students per one book (19). Although the school is overcrowded, there is enough classroom space to hold all of the students and there are no current plans to expand the school. The deputy headteacher believes a larger number of teachers would improve the quality of education, but according to the government, there are plenty of teachers for the number of students. They state that every teacher should be able to educate and manage 60 primary school children (17).

The government is responsible for funding public schools and is required to know the number of students at the school before sending money. Still, the government does not always correct for the growing number of students and there is often a shortage of funds (17). This is the case at another, larger public primary school in Kisumu. The fourth biggest primary school in the area, this school now has 1,896 students and has grown by more than 150 students in the past four years (19). While the headteacher claims that a regular classroom should have a maximum of 55 students, classes at this school have an average of 79 students. The largest classroom has one teacher for 85 students! There are 29 teachers at this school and the number has not grown with the increase in student population, so classrooms are still increasing in size. The headteacher explains that a registration certificate from the government sets a limit on the number of students, teachers, and classrooms a school should have. According to this school's registration certificate, there should

be no more than 1,700 students at this school with 40 students per classroom (19). The school is short sixteen classrooms to meet this ratio. The government is supposed to give Ksh.1,020/child/term. However, the registration certificate clearly does not match the actual situation at the school and the amount of funding from the government has not increased since 2003.

70% of the children attending this school are from slums in the Kisumu area and more than 1/3 of the students come from single-parent homes. As these children are often safer in school than at home, most students come back for extra classes over break. The headteacher explains that the goal of school uniforms is to make it difficult to tell when students are poor, but the cost of these uniforms is on the parents. In an effort to help the poorer students at this school, donations of old uniforms are given to those obviously in need and a subsidized school lunch program has been implemented. Overall, like the deputy headteacher at the first school discussed, this school's headteacher sees the growing number of students as a sign that more children are gaining access to education. For this reason, he cannot limit the number of new students joining the school. At the same time, however, he recognizes that there comes a point at which accepting new students diminishes the quality of education for everyone else (19).

This situation is similar for a public primary school in Nairobi, where classrooms commonly have 40 to 50 students per one teacher (13). At this public school, three students share each bench and the inadequate number of textbooks the school has. Although this school is smaller than other public schools, with 735 students, this number has been growing in past years. Teachers are overworked and funds from the government are never enough. At some public schools, able parents have started to pay for extra teachers, as the government does not hire enough (15). Just like at public schools in Kisumu, a senior teacher in Nairobi explains that the amount of funding from the government stays consistent even though the number of children increases every year (13). 60% of the students at her school are from Kibera and Kawangware slums in Nairobi. Sometimes, church

organizations are able to donate uniforms, but there are constant challenges with supporting these poor students.

Private schools have also faced some challenges, but are certainly better able to provide for their smaller number of students than public schools. At many private primary schools in Kisumu and Nairobi, the number of students has actually gone down since the start of free primary education in Kenya. As parent's financial situations decline, they are not able to afford school fees for their children and switch them to public schools. At a Sikh organization-funded private school in Kisumu, all students receive aid through school fee subsidization (15). Still, parents often struggle with paying school fees on time and a reduced school lunch program has been implemented at this school, as well. Teachers sacrifice their own time to teach remedial classes to students over breaks.

At a church-affiliated private primary school in Nairobi, the number of students is growing. Five years ago, this school had only 480 students and today that number has risen to 660 (14). Still, after free primary education started, there was a time when student numbers dropped rapidly and the school almost collapsed. Twenty years ago, the government was struggling to support the 8-4-4 system of education and many private schools opened in urban areas. Now, competition between private schools, in the face of tuition-free alternatives, is high and other private schools have faced similar declines in the number of students. A different private school in Nairobi faced a similar decline in students, but is now growing again. The headteacher attributes this growth as due to overcrowded, struggling public schools (11). Parents see that the quality of education at public schools in many areas has diminished and they are bringing their children back to private institutions. Currently, both of these Nairobi private schools are under capacity, with average classrooms of about 20-25 students. Although there is a slight shortage of teachers, these private schools are much better off, in this aspect, than their public counterparts (11).

Outside of Kisumu Town and Nairobi, private schools face some of the same challenges as public schools. Like at larger public schools in Kisumu, private schools in Rabuor face shortages of

classroom space and playing fields. A teacher from a private Rabuor primary school of 600 students describes how families in this area are poor and struggle to come up with the money for school fees (10). Even though there is a public primary school in Rabuor, it is severely understaffed and overcrowded. This private school faces a shortage of textbooks and staff, as well. Although there are plans to build more classrooms, piles of bricks and other building materials have been sitting undisturbed at the school for months. At a second private primary school in Rabuor, 75% of the students at the school are orphans, many as a result of parents dying from HIV/AIDS (9). There is enough space for all of the students, but a lack of funds to improve school facilities. At a day school for orphans in Nyalenda, there are never enough learning materials or staff. At this point, given space and funding, the school cannot accommodate any more students (23).

Public schools, in particular, have been negatively affected by Kenya's rapid population growth. One public school headteacher in Kisumu stresses that the government has not made education a priority (19). There are constant challenges with educating such large numbers of students, given the shortage of space, staff, and supplies. Although private schools are able to avoid some of these challenges as they rely on funding from parents and not the government, increasing poverty and economic strain has made it more and more difficult for parents to pay school fees. Most teachers agreed that population growth would only continue in the future, placing greater pressure on the education system. Proposed changes in the school system, like the abolishment of the 8-4-4 system may not be as effective as the government hopes. Reflecting on population growth, one headteacher exclaims that Kenya's population has “more than exploded. It's going to be unbearable” (19). Still, teachers remain positive and believe that growing numbers in schools reflects a more educated population.

Religious Congregations and Views

Just as in other areas of life, population growth has affected religion in the country. Kenya is

home to a wide variety of different Christian denominations that are practiced throughout the country. Church congregations are growing and churches face challenges with funding and providing for their members. A Catholic priest in Kisumu praises Christianity for the growth in both the Church's population and Kenya's national growth. As more believe put their faith in religion, accepting a life of hope and assurance, they live longer (4). One Gospel pastor happily claims that his congregation has grown because people “are hungry for the word of God” (7).

Although a growing congregation means a growing number of people celebrating their faith each week, there is a definite shortage in the number of priests and ministers (4). There is a need for more staff, but the financial resources to support them does not exist. Faced with a larger congregation, a priest must work to address a more diversified set of problems facing his congregants. Admitting that the “congregation is growing too large”, an Anglican pastor insists that his congregation is learning to rely on and support one another (2). Giving to the church has increased and even the youngest members make frequent donations. Still, this pastor often provides his own time and money to support the large number of poor and orphaned individuals at his church. However, in his eyes, a growing congregation shows a growing support for Christianity and “even if the number grows to 5,000, with proper teachings, the church is able to help everyone” (2). A Gospel church in Kisumu also faces a lack of funds to support the needs of the poor, but “trusts God to provide for them” (7).

Lack of space is another common issue for churches with growing congregations. An Anglican church has been working to build a larger cathedral since 1984 and hopes this new 3,000 capacity space will finally be completed this July (2). The Anglican church has also proposed splitting its diocese into two, as it has grown too large. A Catholic church in Kisumu divided its parish just three years ago and will need to split again if it grows any larger (4). This church has steadily grown in recent years and is now at full capacity with three weekly masses of 2-3,000 people. There is currently not enough space to accommodate the 10,000 people in the congregation.

Although a less widely practiced denomination, the Seventh Day Adventist Church also faces its own challenges with space. A small Adventist church in Kisumu is full every week and is also in the process of building a newer, much larger worship space. This church has grown from eighty to three hundred members since 1993 and struggles with funding (8). A Pentecostal church in Nairobi increased by 800 people, last year alone, and now has a congregation of over 3,700 (5). During their weekly 10AM Sunday service, many people have to sit outside the church as they cannot all fit. Even when tents are put up outside, they are filled. There are future plans to expand the church, but funding issues will prevent this expansion from happening any time in the near future. As over half of this congregation comes from Kibera, the church is constantly struggling to support its poor members. Aside from emergency loans and small food donations, there is not enough money to supply significant support to these families (5).

As Kenya's population grows, religious organizations have had to adapt to a larger number of young people in their congregation. An Anglican pastor explains how strict doctrine had pushed young people away from the church. In search of modernity and a more contemporary religious experience, he states that many young people shied away from the Anglican and Catholic Church, which base their services in scripture and historical traditions (2). Only after incorporating clapping and dancing into their services, such as done by the Pentecostal Church and other denominations that appealed to youth, has there been a significant increase in the church's young population. Today, 70% of the congregation of roughly 1,000 is made up of children and young adults (2). A Legio Maria priest from a church in Nyalenda explains that structures in his Church are also being modernized, which will contribute to a growth of new followers (3). This church is struggling financially, but the priest has a positive outlook for the future.

Despite a history of religious doctrine shunning the use of contraception and other forms of family planning, religious views have certainly been changing in the face of a growing national and global population. In the Anglican Church of Kenya, teachings and traditions emphasize how

serious and sacred marriage needs to be taken. An Anglican pastor and the information officer for his diocese in Kisumu stressed the responsibility that has historically come with marriage and mandatory pre-marital counseling must be completed for every couple before he officiates over their wedding (2). An important component of this counseling deals with the issue of family planning. When prompted about his personal opinion on family planning, the Anglican pastor seemed hesitant before outright declaring that he wishes the country would copy China and put a cap on birth rates.

This was far from the response expected from a Christian leader. The pastor then quoted a Bible passage, stating “if anyone does not provide for his relatives, and especially for his own family, he has disowned the faith and is worse than an unbeliever,” as Christian doctrine that convinces him of the importance of family planning (2). The pastor has realized that it is vitally important for people to be able to take care of their families and, if the use of family planning methods prevents them from having more children than they can support, he is completely supportive. Teaching this idea in his counseling sessions, he is fully in support of whichever family planning method works best for that couple. The bishop of his diocese agrees, believing it is “high time for people to start planning their families”, and they are working towards publishing a synodal resolution for the entire diocese about this issue (2). Although the entire Anglican Church does not share these views, both the pastor and bishop of this diocese believe this is the right message to send their congregation.

Other Christian denominations are equally supportive of the use of family planning in response to Kenya's rapid population growth. The Lutheran Church supports family planning and some of its churches even have dispensaries where they provide free birth control (15). A pastor from a Gospel church in the middle of Kisumu Town argues that people practicing family planning are well-off and can provide for their families (7). He worries about poor families who struggle to provide food and education for their large number of children. Many of these poor people have been

sensitized to matters of family planning, but still do not use it. When asked his personal feelings about family planning, he laughed and shared that when the pastor himself is using family planning to control how many children he has, then he and the Church are pretty accepting of it. He explains that “God is a god of planning; each of the seven days he planned out Earth, so following the Bible, you should plan for your life and your future” (7). Although he does not want to speak against the Bible, he explains that there is no point in having lots of children if they are just going to die off because parents cannot support them.

Initially, the Gospel Church was against family planning, but now realize that when family's “basic needs cannot be met, reality comes into place” and there is a need for change (7). Around 2003, Gospel and Pentecostal churches started accepting the idea of family planning, though not everyone is fully supportive. Through their Christian Education Department, a Pentecostal church in Nairobi even provides education on family planning to people in their congregation (5). Although the majority of leaders in this church used to be against family planning, views have slowly changed. Although natural methods are still preferred, pastors from this church encourage families to use whichever methods work best for them (5).

Not all Christian denominations have so drastically changed their positions on matters of family planning. Speaking to a young Catholic priest, he understands the problems that rapid population growth has brought and believes that people should be conscious of the number of kids they are having and can support (4). The Catholic Church is in support of family planning, but if it is done, it should only be through natural methods. Acknowledging that this has been a big challenge facing the Catholic Church, especially with the increasing prevalence of HIV/AIDS, the priest believes all leaders must come together to decide on a concrete theology that can be presented to their congregation. He cannot provide an opinion other than official church doctrine, but admits “there is a difference between doctrine and the common man's experience” and each family must acknowledge their own capacity for having children (4). He ends by explaining that as he has

already planned his life, by joining the priesthood and not having a family, it would be selfish of him to judge those in his congregation. Legio Maria's doctrine on matters of family planning match those of the Catholic Church, insisting on only natural methods of controlling births (3).

Religious leaders are open to sharing their explanations for population growth and their views on family planning. Many provide personal opinions that do not match official doctrine. Members of church congregations are in an even greater position to share their personal views, even if they do not align with the church. An elder from the Seventh Day Adventist church in Kisumu says he is in support of family planning, as there is no point having more children than you can take care of (8). When a younger, college-aged member of the congregation joins him, they clarify their view, saying Adventists are in support of natural methods of family planning. This student explains that “there is a difference between doing family planning and using family planning”, referring to natural versus other methods and insists that medical family planning methods were not intended by God and can harm your body (1). Although Legio Maria doctrine is officially against the use of family planning, one life-long Legio Maria follower feels very differently. He works for an environmental organization and has seen population increase take a heavy toll on the land and the people of Kenya. Although Legio Maria is reluctant to speak about this issue, he is fully supportive of family planning to protect the health of women and to prevent people from having more children than they can take care of (6). Considering how this opinion conflicts with his religious beliefs, he firmly states that family planning is an issue which affects individuals. People can choose to follow church doctrine or “you can open your eyes and follow the beliefs you need to” (6).

While Christian organizations are now split on opinions of family planning, historically religion has had great influence on people's personal beliefs and Kenyan policy. Not only do churches directly affect policy, but they hold a lot of power on people's personal views. A teacher from a church-affiliated private primary school in Nairobi believes the “Church messed up” when it comes to matters of family planning and should have used its power to implement programs that

would have slowed population growth (14). Overall, many Christian denominations are now in open support of the use of family planning methods. While the Catholic Church is against medical methods, Catholic leaders now believe it is time for family planning to be openly discussed and acknowledged as an issue facing the Church and its congregants. Religious organizations in Kisumu and Nairobi have grown significantly in the past few decades. Faced with a shortage of space and limited funding, church leaders acknowledge that there is great difficulty in trying to provide for an increasingly large number of worshipers.

Factors Contributing to Population Growth

Kenyan informants provided a number of different reasons why they believe the population of cities and the nation has increased so dramatically. Although several different reasons were provided, most responded that population growth was in some way related to the use of family planning. Some people believed that this population growth was no cause for concern, while most informants declared the growth was putting a strain on land and resources, especially in cities, and was contributing negatively to overall quality of life. More than half of the people interviewed in Kisumu suggested that post-election violence had contributed greatly to Kisumu's rapid growth in recent years. One pastor argues that Luos are a peaceful people and, following post-election violence, many Luos from around the country decided to settle back in Kisumu (2). Others explain that, following post-election violence, people around the country fled from cities and returned to their tribal lands. People who had been working in other areas of the country feared for their safety and returned to the Kisumu area. Many people decided to invest in their tribal areas, starting businesses and families in areas closer to their rural homelands (4).

Several other informants blamed the government for the rapid population growth in the country. One informant explained that politicians have encouraged Kenyans in their areas to continue having large families, as this will result in larger numbers of people who can vote for them

(15). Not always viewing growth as a negative thing, a different informant praises government stability and a lack of civil wars in the area as contributing to Kenya's prosperity and growth. A public school headteacher in Kisumu believes population growth to be the result of a “failure on government, lack of education, and lack of sensitization of matters of family planning” (19). He argues that government workers are taking two and three wives, having more children, and expecting everyone to provide the resources to take care of and educate them. He states that a failure of government policy to limit the number of children people have based on income has also resulted in increasing numbers of poor people (19).

A major factor noted by almost every informant was lack of family planning usage around the country, especially among the poor and uneducated. One informant remembers that a serious campaign in Kenya to educate people about safe sex and family planning started in 1994 (15). The government was making a significant effort to slow population growth at this time. Today, however, no serious family planning campaigns are happening in Kenya and this informant believes the use of family planning methods is actually decreasing. A public school headteacher agrees that the issue of family planning is no longer a focus of the government (19). Though he heard a lot about it in the 1960s and 1970s, family planning campaigns started fizzling out in the 1980s. A nurse in Kisumu disagrees, saying that she did not hear about family planning much when she was young, but many awareness campaigns exist today (27). As a health care professional, she would probably know whether these campaigns do exist today. However, it is possible that information and awareness of these campaigns is not reaching the general population.

Although efforts to increase the use of family planning have been successful, there is still much resistance. One pastor believes it does not matter if people are educated about family planning, since many will not use it either way (7). A staff member at a district hospital in Kisumu agrees, explaining that family planning services are widely accessible across the country, yet people still choose not to use them (26). One private school teacher in Rabuor explains that people fear the

side effects of family planning methods and think they will not be able to get pregnant again (10). Further resistance comes from husbands, who are often the people preventing their wives from using family planning methods. There is also a myth causing people to believe that if a woman is using family planning methods, she is having an affair (20). Although fears of the increased prevalence of HIV/AIDS has encouraged many people to start using condoms, other contraceptive methods like Depo Provera injections come with a great deal of stigma and misinformation. As men do not like to use condoms, they encourage women to get these injections to protect against unplanned pregnancies, but use no form of protection against STDs. Young women, in particular, are afraid to be seen at family planning clinics (27).

Churches that remain resistant against the use of family planning also dissuade people from using these methods. A young Seventh Day Adventist church member believes that family planning drugs mess with the body God gave you and cause more harm than good (1). A health worker in Rabuor argues that people in the area believe “God put you here and you should multiply” (29). In 1998, Kenya started the Family Life Education Program, a four year pilot program implemented in some public schools across the country, which included sex education, among other topics (14). Although the pilot program yielded positive results, churches showed a lot of resistance and the program was never fully implemented. Apart from views against the use of family planning, religion has influenced population growth in other ways. A Catholic priest explains that Christianity has played a big role in population growth (4). As more people practice lives of faith, they live longer and more people are alive today. A Legio Maria priest in Nyalenda insists that “God's powers” have made Kisumu and other areas grow (3). Other people suggested that the taking of multiple wives resulted in men having more children and contribute to population growth. One informant from Nairobi blames Muslims in the Northeastern part of Kenya for contributing to the country's growing population (11). Although he has seen the number of people in areas decrease as more people practice family planning, this is not the case in predominantly Muslim areas. He

explains that, against the use of family planning, Muslims are still having large numbers of children and so the country's population continues to rise (11).

Several people listed poverty, in itself, as a great contributor to population growth. A school manager from Rabuor explained that as poverty increases, crime and immorality rises in an area (9). Through a repressive cycle, immorality contributes to population growth, which, in turn, results in more poverty. The director of a clinic in Nyalenda believes birth and death rates are balanced in Kisumu (23). Still, he states that “where there is a lot of poverty, there is a lot of sex” and hints at prostitution contributing to increased pregnancies. Although he believes people have really begun to accept family planning, more education still needs to occur, particularly among the poor. A nurse from the district hospital in Kisumu agrees that “poverty is a bed of creating babies” (20). As many impoverished people are unemployed, they have nothing to do all day. She believes this idleness contributes to women getting pregnant and having more children. Population growth is directly linked to education (21). Illiteracy rates, highest in poor areas, have been blamed for contributing to misinformation and a lack of knowledge about population growth and family planning (29). Although many people are now only having one or two children, poor families are continuing to have eight or ten children, so the population rises (5). Although family planning methods are offered free or at a very low cost in facilities all over the country, some poor families cannot afford even Ksh. 20 to pay for birth control (11). When it comes down to paying for family planning methods or paying for food, there is really no debate.

Single motherhood plays its role in population growth, as well. As single women struggle to support their children, they accept men into their lives who are able to provide for them and their families. In time, these women will get pregnant again and have even larger families (15). This situation has also greatly contributed to the spread of HIV. Struggling women let men into their lives without asking them about their HIV status (7). In Turkana, for example, there have been widespread education campaigns to educate women about HIV/AIDS. However, when poor women

are starving and fear their family will have no food to eat that day, they are much less concerned with HIV which will affect them in the future (14). These women would rather have unprotected sex with a man, who can provide for their family today, than worry about HIV/AIDS and starve. Women also give birth at very young ages in some areas, contributing to poverty and a larger number of children over the course of their lives (21).

People recognize that Kenyans are greatly contributing to population growth, but also believe that cities and the nation have grown as a result of people coming in from outside the country. One informant explains that there has been a massive influx of refugees into Kenya (27). Another person attributes the growth in Nairobi, in particular, as due to a large number of United Nations and NGO workers bringing their families in from other countries (5). Overall, Kenyans attribute many different factors to increasing the size of the country's population. While some of those interviewed did admit to not knowing where this population growth was coming from, the vast majority of informants were open to sharing their ideas and held strong opinions about population increase.

Attitudes and Suggestions for the Future

Nearly every person interviewed recognized and explained some negative consequences of Kenya's rapid population growth. Many informants were adamant that the country's growth was ultimately a bad thing. Some people interviewed, however, viewed the nation's growth as positive and saw a larger, stronger Kenya in the future. Informants had various predictions for what would happen in the future and mentioned several different solutions to problems stemming from rapid population growth. A project coordinator for a youth group in Kisumu has a positive outlook for the future of Kenya (12). He believes there is plenty of land and resources in rural areas and people just need to move out of cities, where congestion is overwhelming. He believed that the proposal in the new country constitution of the 'devolution of government' would result in more money and

resources reaching individual counties (12). This would encourage people to move back to their rural homelands, where new opportunities and resources would await them. A headteacher in Nairobi agrees that this new method of distributing funds to the country will ensure more resources and support for those in need (11).

A Gospel pastor has seen no major problems with Kenya's growth, but does acknowledge that there are currently no mechanisms in place to control the country's population expansion (7). He believes population growth will only slow down when people are lifted out of poverty. A school teacher in Kisumu also sees Kenya's population growth as a good thing, as those who are dying are being replaced by new people (17). Although he acknowledges the strain a large number of students has put on his school, a headteacher from Kisumu sees "the large number of students as a blessing if people can think together in a positive light" (19). Ultimately, he is happy that a larger number of students are being educated. As "India and China have way more people" than Kenya currently does, a Catholic priest also believes the country will be okay in the future, especially with the implementation of new technology (4). At the same time, a different informant declares that "we don't want to be like China" and that is the exact reason to heavily control population growth (23).

A school teacher from Nairobi says he sees a time in the future when the population will be three times what it is now, with no resources or land left for people (14). He believes that, ideally, urban areas should be highly developed with much fewer people in rural places. This will allow enough agricultural land in rural areas to really expand food production. He is confident that these more scarcely populated rural areas would be able to produce enough food for the large urban population (14). A pastor in Nairobi sees the possibility that life in Kenya will not be too bad, but only if Kenyans "break away from the traditional way of doing things," embracing new ideas (5). Overall, he sees opportunities along with the challenges and suggests more emphasis is placed on new ideas, like greenhouse farming. Another informant feels that the government has grown too reliant on agriculture and must develop creative new industries for the expanding workforce (13). A

student suggests that people need to take part in economically empowering activities to reduce poverty and improve their quality of life (1). Other stress that there is a great need for sustainable solutions for jobs (23). Currently, many people are employed around Kisumu on road expansion projects. However, when the roads are finished, they will be left with no work.

As mentioned above, many people view's on family planning have changed in recent decades and many religious figures are now in support of the use of family planning to control family size. In fact, 25 of 29 people interviewed were in support of all methods of family planning. Two congregation members were less open to the use of 'chemical' family planning methods and only supported 'natural' methods to control family size. The remaining two informants, a Catholic priest and a Legio Maria priest, admitted that the issue of family planning is kept 'mum' in the Church, but were personally in support of 'natural' methods. The Catholic priest urges the Catholic Church to have new conversations about family planning, but does not know when or by whom they will start (4). The Legio Maria priest, on the other hand, believes that “only one person can tell the future” and has no personal predictions for the future of the country (3).

Along with the vast majority of informants supporting family planning, many of them proposed continued education on and greater use of family planning methods to control population size. A private school teacher in Kisumu believes more education is needed and “birth control should be done by women in cooperation with their husbands” to reduce resistance (15). Several people interviewed actually suggested policies and government support to limit the number of children families can have. As mentioned above, an Anglican pastor suggests Kenya follow China in putting a cap on the number of kids per family (2). Another pastor suggests a possible limit of three children per family (7). Although viewing population growth in a positive light, a headteacher discussed above feels strongly that there should be a limit on the number of children people have based on how much money they make (19). In this way, people will only have as many children as they can take care of based on their poverty level. He also believes that if people had to pay a small

amount for each child in school, even in public schools, they would be more conscious of the number of children they were having. A registered nurse in Kisumu believes that it will be a long time before standard of living improves enough that people can have as many kids as they want to and be able to take care of them all (27). She urges an increased use of family planning to protect the health of mothers. Still, she is clear that she does not want births to be cut off altogether, causing the population to age, like in some developed countries.

Outcome of Study

This project was successful in exploring all of its outlined objectives of study. People interviewed in Kisumu and Nairobi, from rural homelands all over Kenya, are well aware of the changes happening in both urban and rural areas. The great majority of those interviews naturally connected the changes they have witnessed as being due to more people and a greater strain on space and resources, especially in cities. Those who did not automatically connect changes they have seen in the land as being a result of population growth were still able to note several ways in which education and healthcare have changed. Reflecting on these changes, every person interviewed was able to conclude that the number of children in schools, as well as the number of people seeking health care, was growing. Although this expansion may be due, in part, to more people gaining access to education and seeking medical treatment, not necessarily more people actually living in the area, most informants were quite sure about the increase of people living in Kisumu, Nairobi, and other areas around the country.

After discussing how population growth had affected education, health care, and other areas of their lives, teachers, nurses, etc. were able to provide some ways in which their schools and health facilities were trying to accommodate and support growing numbers of people. However, in many cases, a limitation of resources, financial, space, etc. prevented organizations from making significant changes to their infrastructure and limited the amount of aid given to individuals and

families. Public primary schools accommodated more students by allowing them into classes, but classrooms only grew bigger and more students had to share the same number of desks and books. However, in most cases, they were unable to build more classrooms or hire more teachers, given the limited government funding they had. Private schools, whose funding increased with each new student, were in a better situation to expand the school and size of faculty to accommodate more students without hampering the educational experience of other students. Still, growing cost of living and financial difficulties of parents often results in delayed payment of school fees, leaving even private schools unable to fulfill all of their expansion goals. Informants from health facilities, relying on government funding in almost all cases, were constantly struggling with a shortage of staff, space, and supplies. Those facilities with outside funding, such as the clinic in Nyalenda which is backed by an American Christian organization, did not have to depend on the government, but were still limited by the amount of funding they received.

Informants from the religious community were extremely open to questions and willing to share a great deal of information about the history of their churches, current challenges, and views on population growth. Prior to the commencement of this study, the willingness of Christian religious leaders, in particular, to openly discuss matters of family planning was not expected to be high. However, all but one church leader brought up the issue of family planning on their own. While varying levels of support for family planning is currently present among different Christian denominations, the majority of those interviewed are currently in support of all methods of family planning. Overall, it is clear that members from the Christian community, especially younger leaders, have changed their views on family planning in recent years. Unable to ignore the impact of rapid population growth on the people in their own congregations, religious leaders are adapting their views to acknowledge modern challenges.

In most cases, informants stressed the need for increased education and use of family planning methods, especially among poor families. Every person interviewed was informed about

family planning methods themselves, but many brought up misinformation and stigma still associated with the use of these methods today. Even when educated about family planning, others still refuse to use it. The traditional African values encouraging large families with many children, discussed in the Introduction, were rarely mentioned during the course of interviews. It appears that, while religion still influences people's beliefs about family size, these more traditional African beliefs are no longer greatly contribute to the amount of children people are having in Kenya. As the majority of interviews took place in urban areas, this may be a phenomenon happening only in cities. Some informants mentioned that rural families are still very large, but more recent generations of families have started having less children. Every informant who discussed their own children has a smaller number of children than their parents had before them, further contributing to the conclusion that generational changes have resulted in smaller family size. These informants realized that with less space and resources, paired with a higher cost of living, having less children was the only way they could successfully support all of them.

Poverty is still greatly contributing to population growth. Informants emphasized the fact that education directly affects family size and often plays a big role in the use of family planning. Impoverished families are often receiving less education and have less resources to take care of their families. All informants interviewed had completed secondary school, and most had some form of higher education. They were not currently living in extremely impoverished areas, but many had grown up in rural, poor areas. Urban poverty is especially contributing to a growth in city population, as many families in slums do not have access to education, medical services, and family planning. Informants agreed that the poorest families are the ones having the most children. Even when families are having only a few children, however, they contribute to the growth of the country. One informant explains that the population in Nairobi is so high, that even when families only have two or three children, they are still contributing to overcrowding in the city (13).

As this project was quite broad in focus, the ramifications of this study are also varied and

numerous. Every informant was able to describe changes they had seen, but some took a long time to think back to their youth and compare it to present day. As Kenyans read this study, they may realize that they have also witnessed several of the other changes described. This study is able to conclude that Kenyans are definitely aware of changes happening in both rural and urban areas all over the country. In most cases, informants were able to make the link between the changes they had witnessed and population growth. This study also draws attention to the environmental implications of a larger population. More emphasis needs to be placed on recording changes in climate and environment and on minimizing future negative effects. Industries like agroforestry offer solutions that can help protect Kenya's land and climate.

Government groups need to realize that the funding given to public primary schools is not sufficient and prevents schools from providing enough teachers and learning materials to students. Informants in this study emphasized that as student populations at public schools grow, the amount of funding provided by the government is not increasing at a level to match. Teachers and faculty are working hard to educate this nation's youth, but limits in funding have certainly placed a strain on education. Along with shortage of funding to schools, government-funded hospitals and other health facilities are facing issues due to financial strain. Informants believe it is the responsibility of the government to ensure accessible and quality healthcare to all of Kenya's citizens. Government policies need to be reevaluated to better provide affordable healthcare to individuals and families. Today, there are great numbers of unemployed nurses and health workers, while facilities face staffing shortages. Greater funds need to be allocated to hospitals and clinics to allow expansion of facilities and hiring of health workers.

Religious leaders reading this study must acknowledge that Christians across the country have changed their views on family size and matters of family planning. Many others are struggling with religious doctrine and views that conflict with the resources they have and their incapacity to support a large number of children. Particularly among the Catholic Church, which has shown the

greatest continued resistance to family planning methods, an open dialogue must be started between church leaders to reexamine existing doctrine and provide a uniform position on these issues.

Finally, Kenyan citizens reading this study should be left with the understanding that migrating to urban areas to find work is not necessarily going to be the best move for themselves and their families. While space and resources are drained in some areas, prevention of further selling off and fracturing of land will allow agricultural areas to be more productive. There is currently a 'brain drain' of educated Kenyans from their rural homelands to urban areas. More focus needs to be placed on developing less urban areas and allocating resources more effectively to rural lands around the country.

Conclusion

Kenyans are very perceptive to the changes happening around them. Whether reflecting on childhoods in their rural homelands compared to these areas today or noting recent development of urban areas in which they live, Kenyans have witnessed much change in the land, environment, amount of space, and size of towns and cities all across the country. Kenyans are aware that there are greater numbers of people in cities, villages, schools, hospitals, and churches across the country and understand the effects that this growth has had. Rapid population growth has played a large role in the massive rural-urban migration bringing people into cities across the country to find work and has contributed to higher levels of poverty and settlement in urban slums. Public schools, in particular, face shortages in space, supplies, and staff. Hospitals have doubled up beds and have insufficient numbers of nurses, and health centers, while growing and expanding services, still face shortages of medicine, equipment, and health workers. Christian congregations have also grown dramatically across the country and views of religious leaders have been changing in the last few decades. Christian leaders of many denominations are now open and supportive of the use of family planning, understanding that when family size is very large, parents are unable to take care of all of

their children. While some Christian denominations, like the Catholic Church, remain resistant to the use of contraception, leaders acknowledge that a more open dialogue needs to bring these issues to light and reexamine doctrine based on today's challenges.

Kenyans attribute many different factors as contributing to the country's rapid population growth. The root of this growth is linked to education and poverty, with poor families typically having the largest number of children. Most informants are supportive of the increased use of family planning methods. Although barriers and stigma against family planning still exist, especially in rural areas, new emphasis on education and awareness campaigns across the country will help increase the use of contraception and other methods. Many negative consequences of the growth of the population has been witnessed. Some are fearful for the future, in which they predict population will continue to grow and resources and land will be severely restricted around the country. Others, however, have a positive outlook and believe that with creative government strategies and cooperation between parties and people, Kenya will have a strong, prosperous future, overcoming the consequences of population growth.

Recommendations

Given the limited time frame to carry out this study, as well as the lack of prior experience with conducting field work, there are several ways in which it can be extended and expanded. First, it is recommended that further fieldwork be carried out in other urban centers and locations around the country. The field work for this study focused on Kisumu and Nairobi for their different locations and accessibility, given the time frame. However, further study in other locations around the country will bring in a more varied and rich perspective. Speaking with a larger number of individuals will increase confidence in the overall results and conclusions of this study. Furthermore, it is recommended that fieldwork is conducted in more rural areas around the country. Many informants discussed their past in rural areas and the changes they have noticed there, but this

study did not directly speak to anyone currently living in very rural areas in the country. It would be enlightening and interesting to study whether people still living in rural areas have noticed the same changes around them and hold the same views towards population growth.

For future study on this topic, it is recommended that government organizations are interviewed to compare findings from informants to actual data and figures. Contacting the Ministries of Health, the Ministry of Education, etc. will provide data and numbers for comparison with information gathered during interviews with health workers and teachers. It will be interesting to discover whether perceived changes in population size in certain areas actually matches with recorded changes in census data and population counts for the past several decades. Furthermore, contacting government ministries to gather data on the amount of government funding provided to certain schools and health facilities will allow a comparison between informant information and recorded figures. In the case of public school teachers stating that government funding did not match the number of children, this comparison will be especially informative.

If given more time, this project could have included responses from teachers and staff at rural public schools. Rabuor, a more rural area, was visited as part of this study, but due to school closings, only private primary schools could be contacted for interviews. Some stories of rural public schools were shared from staff now working at schools in Kisumu and Nairobi, but no rural public schools were interviewed directly. Additionally, a longer time period for field work would have allowed a more balanced number of interviews between Kisumu and Nairobi. As some organizations in Nairobi were busier and less accessible than their counterparts in Kisumu, more time would have allowed further study and inclusion of population growth's effect on health care and health facilities in Nairobi. Lastly, this study focused on Christianity for its high prevalence of different denominations in Kisumu and Nairobi. With more time, other religious groups, such as Muslims, could have been interviewed for their reactions to population growth and changes in their communities.

Appendices

Appendix I: Interview Questions

General

1. What changes (size, development, environment, etc.) have you noticed in your current city (Kisumu, Nairobi, etc.) over the years, since you moved here?
2. What changes have you noticed in your rural homeland since you were younger/ when you return to visit?
3. What is the reason for these changes? Have some of these changes between the rural and urban areas been the same?
4. Have you noticed an increase in the number of people in these areas (evidenced through more human traffic, road congestion, more houses, etc.)?
5. If so, what do you think accounts for this increase in the number of people (migration, increased births, less deaths, etc.)? Where are these people coming from?
6. Have you noticed people moving into Nairobi and Kisumu from more rural areas? If so, why do you think they have moved?
7. Why do you think Kenya's population is increasing?
8. How do you feel about these changes and this growth? Will it positively or negatively impact this country and its people?
9. What do you think will happen in the future, as a result of these changes and this growth?

Religious Community

1. How has your congregation changed since you have been a leader/ member?
2. If it has grown in size, what has caused this growth? Where are new members coming from?
3. What makes new members want to join this church?
4. How has population growth affected your church?
5. Have church policies changed as a result of this population growth? If not, why?

6. Has the changing population affected your personal beliefs?
7. What challenges is your church facing?
8. How does your church support a growing congregation, especially its poor members?

Educators/ Youth Workers

1. What changes have you seen in the school system, both in rural and urban areas, since you began teaching? Since you were in school yourself?
2. How do you feel about these changes? Are they positive or negative?
3. Has the school size or number of students increased? Do you see these trends continuing?
4. What is the reason for the growing number of students? Where are they coming from?
5. How has the school system accommodated a growing number of students?
6. What challenges is the school currently facing?
7. Have there been issues with fitting all of the students in classes and providing them with furniture and learning materials?
8. Has there been a shortage of staff, facilities, or space?
9. How has the school accommodated poor students who cannot afford fees for uniforms and supplies (and tuition, if a private institution)?
10. What future challenges do you see with educating our youth and how should the school system/ country face these challenges?

Health Care Workers

1. What changes have you seen in the health care system in the last few decades/ since you began working?
2. What challenges has the health care system faced? And with regards to providing care for everyone?

3. Have you noticed an increase in the number of people seeking treatment, particularly poor families and individuals?
4. Have you noticed an increase in the number of births in this health facility?
5. What accounts for this growth in the number of people seeking treatment? Where are these people coming from?
6. How has your health facility, in particular, and the nation's health care system, in general, responded to this growing number of people?
7. Whose responsibility is it to ensure that everyone has access to treatment?
8. Have there been any shortages in supplies, space, staff, etc. as a result of this growing number of patients?
9. Do you see this trend continuing in the future and what can be done about it?

Appendix II: Kenya Population Data Profile From Years 2000 - 2010

KENYA	2000	2005	2008	2009	2010
Population, total (millions)	31.25	35.61	38.46	39.46	40.51
Population growth (annual %)	2.6	2.6	2.6	2.6	2.6
Life expectancy at birth, total (years)	52	53	55	56	..
Fertility rate, total (births per woman)	5.0	4.9	4.8	4.8	..
Mortality rate, under 5 (per 1,000)	111	98	89	87	85

Source: The World Bank Group. "Kenya Data Profile." World Development Indicators Database, 2010. <http://ddp>

ext.worldbank.org/ext/ddpreports/ViewSharedReport

REPORT_ID=9147&REQUEST_TYPE=VIEWADVANCED&DIMENSIONS=116 (accessed March 22, 2012).

Appendix III: Projected Trends in Number of Primary School Children (6-12) in Kenya

(assuming constant fertility and mortality)

Year	Number of Primary School Children
1980	3607000
1985	4385000
1990	5296000
1995	6478000
2000	8029000

Source: Ominde, S.H. *Kenya's Population Growth and Development to the Year 2000 A.D.* Nairobi, Kenya: Heinemann

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Lectures

Karama, Dr. Health Lecture. SIT Kenya: Health and Community Development. Mombasa, Kenya, February 28, 2012.

Interview List⁴

Church Leaders and Congregation Members

1. Student and Congregation Member, Seventh Day Adventist Church, Kisumu, Kenya, April 14, 2012.
2. Reverend, Diocese Information Officer, Youth Pastor, and Bishop's Assistant, Anglican Church of Kenya, Kisumu, Kenya, April 10, 2012.
3. Priest, Kisumu Diocese of Legio Maria, Kisumu, Kenya, April 13, 2012.
4. Assistant Priest, Catholic Church, Kisumu, Kenya, April 11, 2012.
5. Pastor of Missions, Social Action, and Education, Pentecostal Church, Nairobi, Kenya, April 25, 2012.
6. Driver, International Center for Research in Agroforestry, and Legio Maria Congregation Member, Kisumu, Kenya, April 12, 2012.
7. Pastor, Redeemed Gospel Church, Kisumu, Kenya, April 12, 2012.
8. Church Elder, Seventh Day Adventist Church, Kisumu, Kenya, April 14, 2012.

Educators/ Youth Workers

9. Manager, Private Primary School and Orphanage, Rabuor, Kenya, April 13, 2012.

4 Interviews are ordered alphabetically based on name of informant. Names and organizations of all those interviewed have been protected. Interviews have been assigned a number for reference throughout paper.

10. Teacher of Class Three, Private Primary School, Rabuor, Kenya, April 13, 2012.
11. Headteacher, Private Primary School, Nairobi, Kenya, April 24, 2012.
12. Project Coordinator, Youth Organization, Kisumu, Kenya, April, 11, 2012.
13. Senior Teacher, Public Primary School, Nairobi, Kenya, April 27, 2012.
14. Teacher, Private Church-Affiliated Primary School, Nairobi, Kenya, April 24, 2012.
15. Teacher of Mathematics, Science, and Social Work, Private Primary School, Kisumu, Kenya, April 12, 2012.
16. Director, Orphanage, Day School, and Clinic, Nyalenda, Kisumu, Kenya, April 16, 2012.
17. Deputy Headteacher, Public Primary School, Kisumu, Kenya, April 16, 2012.
18. Teacher of Mathematics, Kiswahili, and Science, Private Primary School and Orphanage, Rabuor, Kenya, April 13, 2012.
19. Headteacher, Public Primary School, Kisumu, Kenya, April 17, 2012.

Health Care Workers

20. Nurse Manager, District Hospital, Kisumu, Kenya, April 19, 2012.
21. Laboratory Technologist, Health Center, Rabuor, Kenya, April 20, 2012.
22. Staff, Patient Support Center – HIV/AIDS, Health Center, Rabuor, Kenya, April 20, 2012.
23. Clinic Director, Nyalenda, Kisumu, Kenya, April 17, 2012.
24. Physician and Business Owner, Kisumu, Kenya, April 15, 2012.
25. Nursing Officer in Charge, Health Center, Rabuor, Kenya, April 20, 2012.
26. Staff, Records Department, District Hospital, Kisumu, Kenya, April 19, 2012.
27. Registered Nurse and University Dean of Faculty of Health Sciences, Kisumu, Kenya, April 19, 2012.
28. Clinical Officer, Health Clinic, Nyalenda, Kisumu, Kenya, April 17, 2012.
29. Clinical Officer in Charge, Health Center, Rabuor, Kenya, April 20, 2012.