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"*IS IT AS SIMPLE AS ABC?*" – APPLYING UGANDA'S ABC APPROACH AMONGST THE DINKA ETHNIC GROUP OF SOUTHERN SUDAN

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"*IS IT AS SIMPLE AS ABC?*" – APPLYING UGANDA'S ABC APPROACH AMONGST THE DINKA ETHNIC GROUP OF SOUTHERN SUDAN

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CHAPTER 1

INTRODUCTION

Since it was first recognized during the early 1980's, it is fair to say that the disease known as Acquired Immune Deficiency Syndrome (AIDS) has devastated the lives of millions of people around the globe. Over the decades, HIV/AIDS has transitioned from a gay men's health crisis to a worldwide pandemic, where seroprevalence continues to increase globally with each ensuing year. In fact, by the end of 2006, both the World Health Organization (WHO) and the Joint United Nations Programme on AIDS (UNAIDS) estimated that there were more than 39.5 million people living with HIV/AIDS worldwide, while another 4.3 million were newly infected. As a result, since the AIDS virus was first recognized, it has been responsible for more than 25 million deaths, where in 2006 it was estimated that between 2.5 to 3.5 million people succumbed to the disease, while the total mortality of children was approximated at somewhere between 290,000 and 500,000 (Joint United Nations Program on AIDS [UNAIDS], 2006).

Sadly, the brunt of the disease is distributed quite unevenly and Table 1.1 provides statistics for 2004 and 2006, in terms of prevalence rates throughout the different regions of the world, as well as the number of new infections and AIDS deaths. As shown, sub-Saharan Africa continues to lead the rest of the world, since in 2006 the region accounted for 24.7 million cases of HIV/AIDS, increasing from 23.6 million in 2004 (UNAIDS, 2006). South and South-East Asia fell in second place with 7.8 million people living with HIV/AIDS, while both Latin America and Eastern Europe/Central Asia were tied for third place with 1.7 million people (UNAIDS). Furthermore, in many parts of the world, new HIV infections

seems to be overwhelmingly concentrated among young people, where in 2006, individuals between the ages of 15 and 24 accounted for 40 % of all new infections (UNAIDS). Additionally, women are also bearing a significant portion of the global AIDS burden, as "more adult women (15 years or older) than ever before" are now infected with HIV (UNAIDS, p. 1).

TABLE 1.1

Regional HIV/AIDS Statistics (2004 and 2006)

	Adults and children living with HIV	Adults and children newly infected with HIV	Adult (15-49) prevalence (%)	Adult and child deaths due to AIDS
Sub-Saharan Africa				
2006	24.7 million	2.8 million	5.9%	2.1 million
2004	23.6 million	2.6 million	6.0%	1.9 million
Middle East and North Africa				
2006	460 000	68 000	0.2%	36 000
2004	400 000	59 000	0.2%	33 000
South and South-East Asia				
2006	7.8 million	860 000	0.6 %	590 000
2004	7.2 million	770 000	0.6%	510 000
East Asia				
2006	750 000	100 000	0.1%	43 000
2004	620 000	90 000	0.1%	33 000
Oceania				
2006	81 000	7100	0.4%	4000
2004	72 000	8000	0.3%	2900
Latin America				
2006	1.7 million	140 000	0.5%	65 000
2004	1.5 million	130 000	0.5%	53 000

TABLE 1.1 contd.

	Adults and children living with HIV	Adults and children newly infected with HIV	Adult (15-49) prevalence (%)	Adult and child deaths due to AIDS
Caribbean				
2006	250 000	27 000	1.2%	19 000
2004	240 000	25 000	1.1%	21 000
Eastern Europe and Central Asia				
2006	1.7 million	270 000	0.9%	84 000
2004	1.4 million	160 000	0.7%	48 000
Western and Central Europe				
2006	740 000	22 000	0.3%	12 000
2004	700 000	22 000	0.3 %	12 000
North America				
2006	1.4 million	43 000	0.8%	18 000
2004	1.2 million	43 000	0.7%	18 000
Total				
2006	39.5 million	4.3 million	1.0%	2.9 million
2004	36.9 million	3.9 million	1.0%	2.7 million

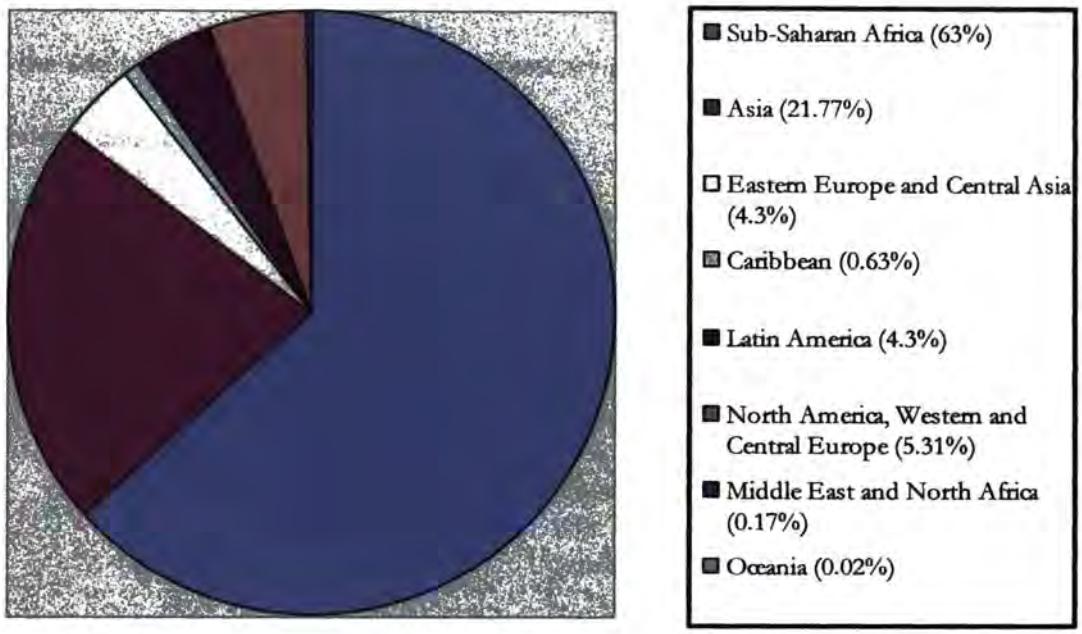
Source: UNAIDS Global Report on the AIDS Epidemic (2006)

Sub-Saharan Africa

It is quite well-established that sub-Saharan Africa has so far suffered the most devastating blow of the AIDS pandemic, where the region which is home to a little more than 10% of the world's population is also responsible for a startling 63% of all people living with HIV/AIDS (UNAIDS, 2006). In fact, in order to illustrate the extent of the AIDS burden in Africa, Figure 1.2 compares the number of people living with HIV/AIDS in the region with the rest of the world in 2006.

FIGURE 1.2

Sub-Saharan Africa Compared to the Rest of the World



Source: UNAIDS Global Report on the AIDS Epidemic (2006)

Hence, as the prevalence of HIV varies among the various regions of the world, the same has also been observed on the continent, where southern Africa "remains the epicenter of the global AIDS epidemic, eastern Africa continues to provide hope that serious AIDS epidemics can be reversed and the prevalence in western and central Africa remains considerably lower than the rest of the region" (UNAIDS, 2006, pp. 1-11).

Furthermore, while there is evidence that some areas are experiencing a decline in infection rates, for the most part "country trends appear to be stable" (UNAIDS, 2006, p. 1). In fact, several African nations are not only faced with devastatingly high prevalence rates, but some also have to cope with the idea that they have yet to reach their peak infection

rates (UNAIDS). As such, most experts have viewed this trend as an equilibrium of sort, where the number of people contracting the virus is beginning to become equivalent to the number of people dying from AIDS (UNAIDS). In order to illustrate the state of the AIDS epidemic in sub-Saharan Africa's three major regions, Table 1.3 provides an approximation of the adult prevalence rates of several countries in southern Africa, eastern Africa and western/central Africa.

TABLE 1.3

Adult HIV Prevalence of Selected Countries in Sub-Saharan Africa (2006)

Southern Africa	East Africa	West and Central Africa
South Africa	Eritrea	Ghana
18.8%	2.4%	2.3%
Lesotho	Kenya	Guinea
23.2	6%	1.5%
Botswana	Uganda	DRC
24.1	6.7%	3.2%
Swaziland	Tanzania	Senegal
33.4%	6.5%	0.9%
Namibia	Somalia	Central African Republic
19.6	0.9%	11%

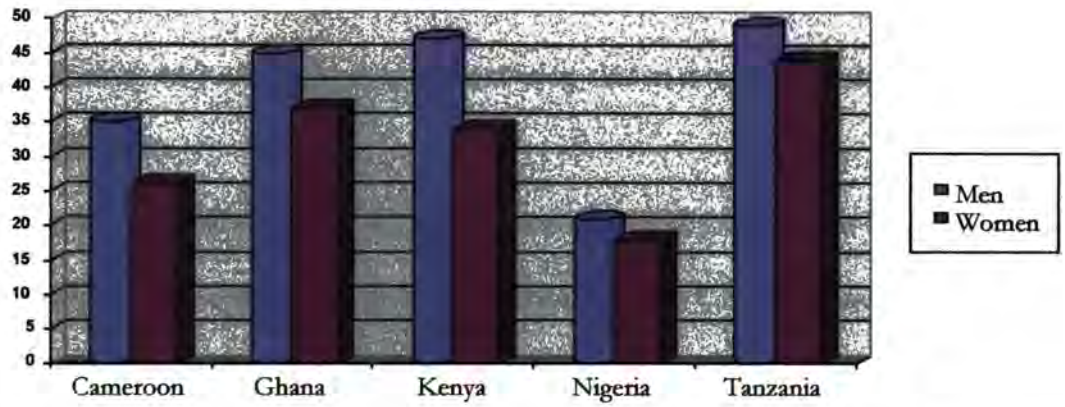
Source: UNAIDS Global Report on the Global AIDS Epidemic (2006)

Inherently, sub-Saharan Africa's high seroprevalence can be attributed to many different factors with one of the most important being a lack of knowledge (UNAIDS, 2006). Unfortunately, a large number of Africans are still ill-informed about HIV transmission routes and women are almost always at a disadvantage in comparison to men, where as a result of their unawareness, they are more likely to be infected with the virus (UNAIDS). Therefore, on a continent where they are often forced to maintain a low social status, women are being forced to bear a significant portion of the region's AIDS burden, which translates into a life of hardships and limited opportunities.

Figure 1.4 partially demonstrates the inequalities that exist between young men and women in five African countries, in terms of HIV/AIDS awareness.

FIGURE 1.4

Percentage of Young People Aged 15-24 Years Who Correctly Identified Major Ways of Preventing Sexual Transmission of HIV (2003)



Source: Demographic and Health Surveys. ORC Macro (Cameroon, Ghana, Kenya, Nigeria); Tanzania HIV/AIDS Indicator Survey 2003-2004.TACAIDS, NBS and ORC Macro (UR Tanzania)

It is quite evident that AIDS has given rise to a desperate situation in sub-Saharan Africa, where the disease has placed considerable strain on social structures, education, industry, agriculture and the region's health status. In other words, on a continent already riddled with wars, struggling economies and a myriad of other problems, AIDS has created an enormous public health crisis, which is single-handedly destroying the future of Africa.

Southern Sudan

The Republic of Sudan, which is located in northeast Africa, is the continent's largest country and one of its most troubled nations. Since gaining independence from Great Britain in 1956, Sudan has endured economic hardship, political instability, troubled foreign relationships, ethnic division and two civil wars, the second of which began in 1983, due to

tensions between Arab Muslims of the northern region of the country and ethnic black Africans of southern Sudan (British Broadcasting Corporation [BBC], 2007). Inherently, the twenty-two year long war led to the displacement of millions of civilians, the death of more than two million people and widespread destruction (Bismark, 2006). Furthermore, the country's civil strife especially affected the South, resulting in serious neglect and the destruction of most of the region's infrastructure (Bismark). In particular, the healthcare system of southern Sudan was ravaged, becoming almost non-existent during the course of the war (Bismark).

In terms of HIV/AIDS, Sudan has been affected by the disease like the rest of the world; and based on epidemiological studies conducted by UNAIDS and the WHO, the country's estimated adult prevalence rate was placed at 1.6% in 2005, while AIDS related deaths were approximated at 34,000 in that same year (UNAIDS, 2006). However, it should be noted that because Sudan has experienced civil unrest for such a long time, it has been rather difficult to obtain exact data pertaining to the extent of the epidemic in the country, particularly the South (UNAIDS). Therefore, most of the data concerning HIV/AIDS is based on ballpark figures, which have perhaps underestimated the actual seroprevalence of Sudan (Bismark, 2006). Furthermore, the extreme conservatism of Sudan's northern region often translates into denial, stigma and discrimination, which have thereby hindered the collection of adequate information (Benesova, 2005).

On a positive note, in early 2005, a comprehensive peace agreement, which formally ended Sudan's twenty-two year civil war was signed in Nairobi, Kenya, which meant that the east African nation had now entered a new era of peace, reconciliation and rebuilding. However, with the signing of the peace agreement now in the past and Sudan's post-war

future in the planning stages, some leaders, aid workers and public health experts in the region have cautioned the east African nation of another battle at hand, which is an inevitable surge in HIV infection rates in the South (Bismarck, 2006). In other words, there are many who have concluded that southern Sudan is a public health disaster waiting to happen. In fact, according to experts,

> All the ingredients for the rapid spread of HIV are present in the region, where poverty, very low school enrollment, a rudimentary health system, and powerlessness of women and girls, combined with cultural practices such as, polygamy and widow inheritance can only exacerbate the problem. (De Luca et al., 2005, para. 2)

Additionally, a large number of displaced southerners, who fled the country during the war are expected to return home as a result of the peace agreement; and this means that the majority of these individuals will be returning from neighboring countries with relatively higher prevalence rates than Sudan (Bismarck, 2006). The African nation also expects to experience a large volume of internal movement in terms of travel from the northern region to the southern region of the country and vice versa (Daniel, 2006). Therefore, this extensive population movement coupled with Sudan's numerous healthcare related problems has been predicted to foster the spread of the AIDS virus (Bismarck).

However, this grim picture can be avoided, since evidence has suggested that effective public health interventions coupled with intensive prevention efforts can prove to be highly productive in the fight against AIDS (Green et al., 2002). In fact, the answer to southern Sudan's problem might lie in its next door neighbor Uganda, who has

demonstrated that success in terms of reducing HIV infection rates can be attained, as a result of appropriate public health interventions and good leadership.

Uganda's ABC Approach

Uganda was one of the first African nations to experience the disastrous effects of HIV, where the AIDS burden doubled bi-annually during the early years of the country's epidemic (Blas et al., 2006). Inherently, the rapid increase in infection rates was exacerbated by a number of factors including a disorganized healthcare system and a lack of accurate information about the disease (Blas et al.). But all of this was soon to change, as a result of many factors including the election of a new leader, the implementation of important public health policies, institutional capacity building, public education and the country's so-called ABC approach (Green et al., 2002).

Uganda's success story has now become synonymous with the ABC approach, which refers to individual behaviors associated with abstinence, monogamy/fidelity and condom use (Green et al., 2002). The HIV prevention strategy promotes abstinence among young people, monogamous relationships for sexually active adults and consistent condom use for individuals involve in risky sexual behaviors (United States Agency for International Development [USAID], 2006). During the 1990's, Uganda experienced significant changes in all of these behaviors, resulting in a decrease in the country's seroprevalence.

Additionally, some international health experts attribute the success of the ABC approach to the strong political commitment of Uganda's President Yoweri Museveni, who acknowledged the severity of his country's AIDS epidemic in the early stages and accordingly "launched an aggressive campaign involving posters, radio messages, rallies and HIV/AIDS education" (Averting AIDS and HIV [AVERT], 2007). The government also

promoted a multi-sectorial approach, which encouraged collaborations between community leaders, religious organizations, NGOs and the general public. As a result, the ABC approach proved to be effective in the resource-poor African nation, by substantially reducing its HIV prevalence (AVERT).

Literature Review

After accomplishing what has been described as an astonishing feat, Uganda's ABC approach has achieved international acclaim and as a result, the HIV prevention strategy has been suggested as a potential model for other countries, especially those of sub-Saharan Africa (Blas et al., 2006). However, for some time now, the extent to which the ABC approach can in fact be replicated outside of Uganda has been a subject of study for many researchers and public health experts (Blas et al.). Much of this research has focused on the complex relationships that exist between the individual behaviors referred to as A, B and C and what aspects of Uganda's success can be effectively duplicated in other countries (USAID, 2006). In other words, countries differ from each other and prevention interventions are most successful when they are designed to fit the unique needs of a community or a nation (USAID). Therefore, according to researchers, A, B, and C interventions "should be balanced accordingly and approaches must be combined as appropriate, based on the local cultural context, as well as the state of the AIDS epidemic" (USAID, para. 14). In fact, according to the Office of the U.S. Global AIDS Coordinator, every country that decides to implement the ABC approach "must include all three components, promoted strategically to appropriate populations and drivers of the disease" (USAID, para. 2). Hence, a favorable balance of ABC activities warrants careful assessment

of risks behaviors that stimulate local epidemics, identification of key transmitters, cultural and social norms and other relative factors (USAID).

Purpose of Research

The purpose of this thesis is to explore those activities that can potentially result in a constructive balance of A, B and C activities, which could translate into an effective HIV prevention strategy for southern Sudan's largest ethnic group, the Dinka. Therefore, the overall objective of this paper is to examine the local cultural context of the Dinka (meaning a detailed examination of their culture, traditions and societal norms), as well as the state of the AIDS epidemic in areas populated by the ethnic group and then determine those public health and/or health management and policy strategies, which will be the most successful in tailoring an appropriate mix of ABC activities.

Research Questions

1. What is the favorable mix of ABC activities that could result in an effective prevention HIV/AIDS strategy for the Dinka ethnic group?
2. What are the public health and/or health management and policy strategies, which will be the most effective in tailoring an optimal mix of ABC activities for the Dinka ethnic group?
3. How will the cultural and societal structure of the Dinka affect the implementation of the ABC approach?
4. How will the circumstances in southern Sudan i.e. the side effects of the civil war, affect the implementation of the ABC approach?
5. What is the state of HIV seroprevalence in areas populated mainly by the Dinka? Who are the high risks groups? Is HIV generalized or confined to high risks groups?

6. Which entities/organizations will be the most involved in the implementation of the ABC approach for the Dinka?
7. Should male circumcision be promoted as an additional prevention strategy among the Dinka?

Methodology

The procedures for this research included the utilization of all resources pertinent to the purpose of the paper including articles, the worldwide web, academic/professional journals, books and a survey conducted among individuals belonging to the Dinka ethnic group. Perhaps, the most significant component of the research was the survey, which was performed in order to determine the potential impact that the tribe's societal and cultural structure will have on the implementation of the ABC approach. As such, the purpose of the survey was to determine the variation in opinions which exists between the different demographics of Dinka individuals regarding several issues involving HIV/AIDS, culture/societal structures and gender roles. Inherently, the objective of the survey was to obtain a better understanding of Dinka culture and society, in order to determine how best to implement the ABC approach.

The survey was conducted in both paper and email format, which were distributed to randomly selected participants and consisted of 38 questions. The questions addressed issues concerning cultural beliefs and practices, HIV awareness, risk behaviors, knowledge of prevention methods, attitudes toward HIV/AIDS (stigma/discrimination) and attitudes towards abstinence, faithfulness and condom use. Every participant was asked to provide their age, sex, income level, religion, highest level of education and length of stay in their

country of current residence. Below is a sample of some of the questions included in the survey:

1. Have you ever heard of HIV/AIDS?
2. Have you ever been tested for HIV?
3. Do you think that AIDS is a fatal disease?
4. What can people do to protect themselves from getting infected with HIV?
5. Do you believe in practicing safe sex via condoms, even if you have only one sexual partner?
6. Is it acceptable for a Dinka woman, married or not to buy condoms?
7. Does a woman have the right to demand the use of a condom by her sexual partner?
8. If you are a male and you decided to go back and live in southern Sudan, would you consider having more than one wife?
9. If you are a male, are you circumcised? If not, would you consider circumcision if it were proven to help prevent HIV transmission?
10. Do you believe that widow inheritance is still practiced in southern Sudan? If so, do you think that the practice should be completely eliminated from Dinka culture?

Limitations

The study was delimited by:

1. A majority of the survey participants were Dinka individuals, who are residents of the United States; therefore, this fact might have influenced their responses. In other words, the possibility of a difference of opinion was taken into consideration, since the responses of Dinka individuals residing in southern Sudan were expected to differ slightly or significantly from Dinka individuals residing in the Unites States.

2. Since some of the questions on this survey were deemed as personal questions, some individuals declined to answer such questions.
3. In conducting the survey, 101 individual completed the questionnaires, therefore, a larger sample size would have probably produced more statistically significant results.

Assumptions

For the purposes of this study, the following assumption was made, all participants responded honestly.

Definition of Terms

1) *Dinka Ethnic Group* Nilotic tribe of southern Sudan that consists of approximately 4 million people, making them the largest ethnic group in Sudan. The Dinka are primarily pastoral and inhabit the Bahr el Ghazal region, the Upper Nile region and the Southern Kordufan Region (see Appendix A) (Deng, 1972).
2) *Acquired Immune Deficiency Syndrome (AIDS)* "A fatal disorder caused by a virus transmitted in the blood and other bodily fluids, marked by severe loss of resistance of resistance to infection" (The Oxford American Dictionary of Current English, 1999, p. 15).
3) *Human Immunodeficiency Virus (HIV)* "A retrovirus causing AIDS" (The Oxford American Dictionary of Current English, 1999, p. 372).

Importance of the Study

Public health has always played an important role in the implementation of healthcare in sub-Saharan Africa and with HIV/AIDS ravishing the region, the discipline has become even more important, where all areas including environmental health, epidemiology, community health, maternal health and health planning plays its own unique role. Uganda's

ABC approach is a great example of the idea that public health efforts combined with good leadership can prove to be effective in changing the course of an epidemic. In fact, researchers are hopeful that programs such as the ABC approach can make a difference, in terms of reducing the impact of HIV/AIDS on the African continent. But naturally, differences exist between countries and what may have worked for Uganda might be prove to be rather ineffective for another African nation. Southern Sudan with its many ethnic groups, each with their own set of traditions and rules is a perfect example of the need for programs that are locally driven. Unarguably, the fight against the spread of HIV/AIDS will prove to be difficult a one for the South, due to the many problems facing the region after so many years of civil strife. In other words, there is so much to do and resources are severely limited.

Finally, HIV/AIDS has not only affected the health of million of Africans, but the disease is single-handedly changing the dynamics of life on the African continent. The world is constantly reminded of the African plague, with millions of people succumbing to the disease every year. Inherently, the AIDS problem in southern Sudan and the rest of sub-Saharan Africa is a multi-dimensional issue, which will be effectively solved with multi-dimensional solutions. Therefore, every aspect of the problem needs to be taken into consideration, in order for the region to successfully control the spread of the disease. As such, it is extremely important that Africans themselves began to increase their efforts to fight AIDS, so that they can save the future of their continent; and hopefully, like it next door neighbor Uganda, southern Sudan can rise to the occasion in becoming an African success story.

CHAPTER 2

LITERATURE REVIEW: SOUTHERN SUDAN

Sudan, with its population of approximately 39 million people is one of the most diverse countries in Africa, boasting hundreds of ethnic groups and several languages (BBC, 2007). The east African nation, which is slightly larger than one quarter the size of the United States, encompasses three major geographic areas including the Northern zone, the Central zone and the Southern Equatoria zone (BBC, 2007). The Northern zone contains the Libyan Desert, as well as the Nubian Desert, while the Central zone includes Kasala, Gezira and Darfur (BBC). Finally, southern Sudan accounts for most of the Southern Equatoria zone (BBC). Inherently, the country's ethnic groups can also be distinguished into two major cultures which include:

1. Arabs of Nubian descent, who reside primarily in the North along the Nile River (BBC).
2. Black Africans (Nilotic and Sudanic people), who occupy most of southern Sudan (BBC).

The North accounts for an estimated 60% of the Sudanese population and includes many of the country's urban centers, while the South accounts for almost 22% of the population and is predominantly rural (BBC). The majority of northerners are Muslims, as opposed to the South, where a majority of the population practices Christianity and other traditional religions (BBC). Arabic is the official language of the country, but English is also used, primarily among the educated elite (BBC).

Economically, Sudan is an agricultural country meaning that 80% of the workforce earns a living via that sector, which is also responsible for 39% of the country's GDP (World Bank, 2006). In terms of natural resources, several rich minerals are available in the east African nation including gold, silver, manganese, asbestos, natural gas and petroleum (World Bank).

Table 2.1 provides a brief profile of Sudan by providing some key demographic and economic indicators for the years 2000 and 2005.

TABLE 2.1

Sudan's Demographic and Economic Profile

Indicator	2000	2005
Total population	32.9	36.2
Population growth rate (%)	2.1	2.0
Infant mortality rate (per 1000 live births)	65.0	62.0
Life expectancy at birth	55.9	56.7
Literacy rate, adult total (% - ages 15 and above)	60.9	61.1
GDP (US$ Billions)	12.4	27.9
GDP growth (Annual %)	6.5	8.0
GDP per capita ($US dollars)	376	760
GDP purchasing power parity (US$ Billions)	64.174	77.941
GNI (Atlas method, US$ Billions)	10.3	23.4

Source: The World Bank (2007)

In the 1970's, oil was discovered in Sudan and exploration began immediately, but was later halted during the mid eighties, due to civil unrest in the South, where the largest petroleum deposits are located (Gettlemen, 2006). However, the government later resumed work during the late 1990's due to partnerships with foreign nations, which consequently

resulted in the construction of a pipeline from oil wells in the South to the Red Sea Port (see Appendix A) (Gettlemen).

As a result, Sudan has experienced a boost in its economy over the past few years, and according to the New York Times, "oil has turned the Sudanese economy into one of the fastest growing in Africa – if not the world"(Gettlemen, 2006, para. 5). Economic growth has also strengthened Sudan's central government, which has often been accused of human rights abuses including an attempt to implement the harsh Islamic law referred to as Sharia, throughout the entire country (Gettlemen). Hence, while many companies in both Europe and the United States have refrained from conducting business in Sudan, "firms from China, Malaysia, India, Kuwait and the United Arab Emirates" have all been eager to pursue investment opportunities in the country; and despite U.S. sanctions, foreign investments in the east African nation have grown substantially during the past six years increasing from $128 million in 2000 to $2.3 billion in 2006 (Gettlemen, para. 5). Unfortunately, as the Sudanese government reaps the benefits of a growing economy, while pouring millions of dollars into the construction of roads, power plants, hospitals and schools, "the wealth is hardly evenly shared and much of country including Darfur and southern Sudan remain desperately poor" (Gettlemen, para. 9).

Southern Sudan

Southern Sudan covers an area of approximately 640,000 square kilometers, which includes ten of the country's states and has a population of around 8.5 million people (BBC, 2007). After the signing of a comprehensive peace agreement in 2005, the South was granted semi-autonomy as a result of the Machakos Protocol, which allows the region to have its own government for six years, a period after which its political leaders will be given the

opportunity to vote on the issue of becoming an independent nation (Gurtong Peace Project, 2006). Inherently, the peace agreement granted the southern states responsibility for their internal affairs, along with an army, religious freedom and a new constitution (Gurtong Peace Project). As such, the southern Sudanese government is led by Salva Kiir, who also serves as vice president of Sudan's central government (BBC, 2007). However, it should be noted that the east African nation's peace agreement seems to be on the verge of a collapse, where the country is at risk of returning to war due to several factors including political disagreements over the control of oil revenues (BBC).

Table 2.2 provides some key demographic indicators for southern Sudan for the year 2004 including life expectancy, crude birth rate and total growth rate.

TABLE 2.2

Demographic Indicators for Southern Sudan in 2004

Indicator	Estimate (2004)
Total population	8,184,000
Rural population	98%
Under 5 population	21%
Under 18 population	53%
Population over 65 years	1.6%
Life expectancy at birth	42 years
Total fertility rate per woman	6.7
Crude birth rate	50.5
Crude death rate	22
Total growth rate of population	2.85

Source: World Health Organization Southern Sudan Office – Annual Report (2004)

The region's ten states are divided into three major provinces including Equatoria, Bahr el Ghazal and the Upper Nile (Wikipedia, 2006). Juba, which is located in the Central Equatoria state is regarded as the capital city of southern Sudan and contains all of the region's administrative offices (Wikipedia). Yei, on the other hand, is considered the

commercial center of the South and is also located in the Central Equatoria state (Wikipedia).

The South is home to several ethnic groups including Nilotic tribes such as the Nuer, Shiluk and Dinka, as well as Sudanic tribes, which includes the Azande and Acholi (Gurtong, Peace Trust, 2006). The region does not have an official language, but some of the most widely spoken languages include the Juba Arabic language, English, Dinka and Nuer (BBC, 2007).

Post-War Southern Sudan

Southern Sudan is considered one of the poorest and least developed places in the world and more than twenty years of civil war has severely affected the region resulting in serious neglect, major destruction and the displacement of millions of people (International Republican Institute [IRI], 2003). A rudimentary amount of infrastructure exists in the South, as the region lacks paved roads, schools, hospitals, telecommunication networks and electricity (IRI). As a chiefly rural and agricultural economy, the South has often been subjected to bouts of drought, famine and floods, resulting in the obliteration of crops (IRI). Most people live on less than a dollar a day, without access to many of life's basic necessities including healthcare, clean water and adequate nutritional support (IRI). As such, the overall humanitarian situation in southern Sudan, even two years after the signing of the peace agreement, "remains dire and the overall demand for basic health and social services, income generation and capacity building is overwhelming"(IRI, p. 1).

In terms of security, the region is still considered to be relatively unsafe due to many factors including the presence of the Ugandan based Lord's Resistance Army (LRA) right

outside the Sudanese border with Uganda, as well as several other militia groups, which are still reluctant to be mainstreamed into the peace process (Watchlist on Children and Armed Conflicts, 2003). These armed groups pose a constant threat, as they have often been accused of many human rights violations including pillaging, physical and sexual abuse, the use and ill-treatment of children as child soldiers and the kidnapping of women and children into slavery (Watchlist on Children and Armed Conflicts). Furthermore, the presence of militia groups has especially hindered the process of demobilizing former child soldiers, making it rather difficult for them to be re-integrated into Sudanese society (Watchlist on Children and Armed Conflicts). In fact, according to the United Nations, children are still being actively recruited by southern Sudan's numerous armed groups, where it has been reported that as many as 8,000 children are still being used as soldiers (United Nations Office for the Coordination of Humanitarian Affairs, 2006).

In addition to the threat posed by militia groups is also the ever present danger of land mines buried during the war (United Nations Children's Fund [UNICEF], 2006). According to UNICEF, Sudan is one of the "tenth most landmine-affected countries in the world" and while no accurate data exist concerning the actual number of mines, it is believed that many "live bombs, grenades and shells lie below the surface of fields near homes, putting children and their families at risk for dismemberment or death" (UNICEF, 2004, para. 2). UNICEF also points out that many of the people who remained in the South during the war are partially aware of areas where mines are placed and therefore are careful and watchful of such locations; but for returning refugees and the internally displaced who have been out of the region for years, buried mines pose a much graver threat, as a majority of returnees don't know where mines are planted (UNICEF). Women and children are

especially vulnerable to injury and death from landmines, since their domestic chores often take them into forests, water points and fields littered with mines (UNICEF). Additionally, buried mines have also affected people's access to medical facilities, schools, vaccination programs and several other essential goods and services (UNICEF). Finally, casualties due to landmines are hardly ever reported, since most victims often perish before reaching a medical facility (UNICEF).

Status of Women and Children

Women and children have been especially affected by the civil war, as southern Sudan "ranks as one of the worst places in the world on many health and social indicators including chronic malnutrition rates, completion of primary school, ante-natal care and immunization rates" (UNICEF, 2006, p. 1). After decades of war, many women have been left without spouses, thereby increasing the number of female-headed households, while more than 50,000 children have lost at least one of their parents (Watchlist on Children and Armed Conflicts, 2007). In fact, the children of southern Sudan "are among the most vulnerable population in the world, where many succumb to treatable diseases and malnutrition", while others live on the streets with hardly any access to medical care, education, clean water or other social services (Watchlist on Children and Armed Conflicts, 2003, p. 6).

In the South, where 58% of the population fall under the age of 18, 85% of school age children are not receiving an education, as there are not enough schools to accommodate the entire population and trained teachers are often scarce (Watchlist on Children and Armed Conflicts, 2007). In fact, only 1 in 50 children complete their primary school education, which translates into a dropout rate of 50% in Grades 1 and 2 and a rate

of 30% among third graders (Watchlist on Children and Armed Conflicts). It should also be noted that in view of the fact that only 6% of southern Sudanese communities are "within walking distance of a secondary school", students are often forced to walk miles to school, placing them at a higher risk of being abducted, killed or maimed by buried mines (UN, para. 11).

Furthermore, when students are enrolled in school, they are often taught in open air classrooms, where they lack important educational materials and essential services such as portable water sources, health clinics and latrines (Watchlist on Children and Armed Conflicts, 2007). As a result, the adult literacy rate of southern Sudan has been estimated at a low 33% (Watchlist on Children and Armed Conflicts).

Table 2.3 provides several education indicators for southern Sudan including primary school completion rate and gross enrollment ratio in primary schools.

TABLE 2.3

Education Indicators for Southern Sudan (2004)

Indicator	Estimate (2004)
Primary school completion rate	1.9%
Primary school completion rate, male	3%
Primary school completion rate, female	0.8%
Share of cohort reaching grade 5, male	30%
Share of cohort reaching grade 5, female	22%
Gross enrollment ratio – primary schools	23%
Adult literacy rate	24%
Adult literacy rate, male	37%
Adult literacy rate, female	12%

Source: World Health Organization Southern Sudan Office – Annual Report 2004

As depicted in Table 2.3, southern Sudanese girls are in a particularly worse position than boys, as they are severely underrepresented in the educational system, where issues such as early marriages and the lack of safety, contribute to their low school enrollment and

retention rate (WHO, 2004). Consequently, three times more boys than girls are enrolled in school, resulting in an adult female literacy rate of approximately 12% and a literacy rate of 16% among girls below the age of 18 (WHO). In fact, according to UNICEF, a southern Sudanese girl is more likely to become a mother or a wife, than to attend school (UNICEF, 2006).

As such, in a society where they are expected to spend most of their time performing domestic chores, women are often deterred from pursuing opportunities outside of the household including obtaining an education or engaging in income generating activities (Duany et al., 2001). Young girls are expected to assist their mothers and by puberty, they become eligible for marriage, which is an idea often welcomed by families, since it usually results in the acquisition of wealth (UNICEF, 2006). Additionally, girls who have lost their parents are particularly at risk, since they are more likely to be exploited and forced into arranged marriages or slavery (UNICEF). In fact, the pattern of marriage in southern Sudan has changed as a result of the war, where girls are now being forced to get married at ages as young as thirteen (UNICEF). Thus, women in southern Sudan are often left in a precarious position, as a result of their low social status, making them disadvantage both by war and traditional values (UNICEF).

Refugees and the Internally Displaced

As with many conflict-affected areas, the civil war led to the displacement of millions of southerners both within Sudan and abroad (United Nations High Commission for Refugees [UNHCR], 2005). In fact, according to the United Nations, an estimated 4.4 million people were displaced by the war, with approximately 2 million settling in and around Khartoum, placing Sudan at the top of the list of countries with the highest numbers

of Internally Displaced Persons (IDPs) (UNHCR, 2007). Furthermore, bordering countries such as the Central African Republic, the Democratic Republic of the Congo (DRC) and Uganda have all played host to hundreds of thousands of southern Sudanese refugees, while others have immigrated to areas outside of Africa including North America, Europe and Australia (UNHCR).

In Khartoum, less than 10% of IDPs reside in official camps, therefore, a majority of the population live miserably "in dilapidated squatter neighborhoods, where many are child laborers" (Watchlist on Children and Armed Conflicts, 2007, p. 55). Additionally, Khartoum's IDPs are hardly protected and are often subjected to mandatory relocations, destruction of houses and random arrests (Watchlist on Children and Armed Conflicts). Finally, with the recent crisis in Darfur, IDPs have been placed in a worse position, where aid has been partially shifted from their population to that of western Sudan, where people are equally in need of help (Watchlist on Children and Armed Conflicts).

A majority of refugees living in Uganda reside in 25 settlements, some of which are subjected to raids by the LRA, where women and girls are often abducted and subjected to physical violence (Watchlist on Children and Armed Conflicts, 2003). For those living in Kampala (the capital city of Uganda), life is equally difficult, since refugees often have insufficient access to food, material assistance, housing and healthcare services (Watchlist on Children and Armed Conflicts).

In Kenya, refugees live in three major camps in the northwestern part of the country, where once again conditions are harsh and the situation has been described as a chronic emergency as a result of severe poverty (Watchlist on Children and Armed Conflicts, 2003). In fact, according to the United Nations High Commission for Refugees (UNHCR),

more than 23,000 Sudanese refugees living in Kenya were on the brink of starvation in 2003 (UNHCR, 2007). Furthermore, tensions between both the Sudanese and Kenyan communities have created a rather uncomfortable environment for refugees (UNHCR).

Finally, in the Democratic Republic of Congo, approximately 50% of refugees receive no humanitarian aid or live in established camps (UNHCR, 2005). Moreover, since the DRC has been fighting its own war during the past few years, Sudanese refugees have found themselves in an environment, where once again they are being forced to deal with the many implications of war (UNHCR).

Table 2.4 provides an estimation of the number of southern Sudanese refugees living in the countries bordering Sudan for the year 2005.

TABLE 2.4

Southern Sudanese Refugee Population

Country	Estimation of Southern Sudanese Refugee Population
Uganda	155,400
Ethiopia	84,200
Democratic Republic of Congo	70,000
Kenya	68,200
Central African Republic	12,000
Chad	23,000
Ethiopia	79,000

Source: Watchlist on Children and Armed Conflict (2003)

Hence, the signing of the peace agreement has meant the return of several thousand civilians, where the United Nations estimates that more than 150,000 southern Sudanese have returned home since 2005 and 35,380 are expected to return in 2007 (UNHCR, 2005). Of course, several NGOs have been actively involved in assisting in the process of repatriation, as the southern Sudanese government and local communities are

hardly equipped to deal with most of the issues associated with the reintegration of refugees (UNHCR). Consequently, "the tasks are daunting, costly, labor-intensive, time consuming" and are more likely to be affected by other challenging problems facing the region (UNHCR, p. 11).

Healthcare in Southern Sudan

Perhaps one of the major challenges facing southern Sudan today is the lack of a functional healthcare system, where the health status of the region's population is among one of the worst in the world; and Table 2.5 illustrates the state of healthcare in southern Sudan one year prior to the signing of the peace agreement, by providing several key health indicators including the region's infant mortality rate, maternal mortality rate, HIV/AIDS adult prevalence rate and the percentage of pregnant women receiving pre-natal care (WHO, 2004).

TABLE 2.5

Health Indicators for Southern Sudan in 2004

Health Indicator	Estimate (2004)
Infant mortality rate	150/1000 live births
Under 5 mortality ratio	250/1000 live births
Maternal mortality ratio	1700/100,000 live births
Births attended by trained personnel	6%
Pregnant women receiving pre-natal care	16%
Lifetime of risk of dying during pregnancy or childbirth	1 in 9
Tetanus vaccination of pregnant women	16%
Measles vaccination among children < 1	25%
Polio vaccination among children < 1	30%
BCG vaccination among children < 1	21%
HIV/AIDS adult prevalence rate (national rate)	2.6%
Incidence of tuberculosis per 100,000	325
Malaria cases per 100,000	>50,000

Source: World Health Organization Southern Sudan Office -Annual Report (2004)

It should be noted that, Sudan's official national statistics often fail to reveal the extent and impact of under-development in the South, as the health and well-being of southerners have hardly improved since the signing of the peace agreement (UNAIDS, 2006). Inherently, the region is not only faced with many developmental challenges including the lack of healthcare facilities and personnel, but it also now faced with the threat of impending epidemics associated with several diseases including AIDS, leprosy, elephantiasis and cholera (WHO, 2004).

Table 2.6 illustrates the impact of several diseases in southern Sudan by providing an estimation of the major causes of morbidity in the region for the year 2004.

TABLE 2.6

Major Causes of Morbidity in Southern Sudan (2004)

Morbidity Factor	Deaths Caused by Morbidity Factor (%)
Malaria	28%
Diarrhea	13%
Respiratory Infections	11%
Intestinal Parasites	8%
Skin Infections	5%
Sexually Transmitted Diseases (STDs)	4%
Trauma	5%

Source: World Health Organization Southern Sudan Office – Annual Report (2004)

According to a health report published by the WHO in 2006, the spread of disease continues to affect the southern Sudanese population, where women and children are more adversely affected, as many live in remote areas beyond the reach of international relief efforts. Hence, in 2006 the WHO confirmed that in the South, there were 5,369 reported cases of cholera, 4,308 reported cases of meningitis, 196 reported cases of measles and 19,155 reported cases of acute watery diarrhea . Additionally, tuberculosis is still considered a chief cause of morbidity and mortality in southern Sudan, while trypanosomiasis (sleeping

sickness), which has long affected the region, remains endemic (WHO, 2006). Malaria continues to claim the lives of thousands of southerners every year; and Guinea worm disease, which is known to occur in only about a handful of countries around the world is also prevalent in southern Sudan, where the entire country is responsible for two-thirds of all of the world's cases (USAID, 2006).

Additionally, the prevalence of disease in southern Sudan has been exacerbated by the region's inadequate healthcare system, which has several significant constraints including a shortage of doctors and a drug system that is for the most part reliant on foreign NGOs, since the southern Sudanese government is currently unable to manage its own healthcare system (WHO, 2004).

Table 2.7 provides figures in terms of the number of healthcare facilities for some of the South's major regions in 2004, while Table 2.8 provides statistics pertaining to the number of healthcare personnel.

TABLE 2.7

Status of Healthcare Facilities in Southern Sudan

Region	Population	Functional Healthcare Facilities	Hospitals and Specialty Clinics	Primary Healthcare Centers	Primary Health Care Units	Mobile Outreach Clinics
Equatoria	2,134,994	380	19	52	309	0
Bahr el Ghazal	4,040,945	162	14	28	120	0
Upper Nile	1,526,749	177	12	12	130	23
Southern Blue Nile	165,000	24	1	3	6	14
Total	7,867,688	743	46	95	565	37

Source: World Health Organization Southern Sudan Office-Annual Report (2004)

TABLE 2.8

Number of Healthcare Staff in Southern Sudan

Regions	Doctors	Medical Assistants	Nurses	Lab Techs	Primary Healthcare Workers	Total
Equatoria	18	89	409	698	1591	2805
Bahr el Ghazal	4	82	144	9	735	974
Upper Nile	2	21	54	12	269	356
S. Blue Nile	2	0	0	0	0	2
Total	26	192	607	719	2595	4137

Source: World Health Organization Southern Sudan Office-Annual Report (2004)

HIV/AIDS in Southern Sudan

With the return of peace, southern Sudan is now faced with the threat of an impending AIDS epidemic, as the region harbors many ingredients, which could potentially increase its seroprevalence (Bismark, 2006). Inherently, the combination of several factors including the return of refugees and IDPs, inadequate health and educational services, risky cultural practices (such as widow inheritance and polygamy) and the presence of more than 10,000 foreign troops have created an atmosphere conducive to the spread of the disease; and while UNAIDS estimates the Sudanese national adult prevalence rate at about 1.6% in its Global Report on the AIDS Epidemic for 2006, it should be noted that very little is known about the extent of HIV seroprevalence in the east African nation, especially the South (UNAIDS, 2004).

The lack of a comprehensive seroprevalence study has proven to be detrimental to the South, where existing data has provided varying estimates in terms of the region's adult HIV prevalence rate with estimated figures usually falling somewhere around 2.3% to 7%

(UNAIDS, 2004). Therefore, the significance of a national survey is based on the premise that it could provide a clue in terms of how quickly the disease might spread and what actions are needed in order to prevent a devastating epidemic (UNAIDS). Also, policy makers and all parties involved in the provision of healthcare in the South would benefit from a comprehensive social and behavioral survey, as it would allow them gain a better understanding of people's knowledge and attitudes about the disease (UNAIDS).

Table 2.9 provides some details regarding Sudan's estimated HIV/AIDS seroprevalence for 2003 and 2005.

TABLE 2.9

HIV/AIDS Estimates for Sudan (2003 and 2005)

	2003	2005
Adults (15+) and children	330 000	350 000
Low estimate	170 000	170 000
High estimate	540 000	580 000
Adults (15+)	300 000	320 000
Low estimate	160 000	160 000
High estimate	500 000	530 000
Children (0-14)	28 000	30 000
Low estimate	11 000	12 000
High estimate	68 000	74 000
Adult rate (15-49) (%)	1.6	1.6
Low estimate	0.8	0.8
High estimate	2.7	2.7
Women (15+)	170 000	180 000
Low estimate	75 000	80 000
High estimate	310 000	320 000
Deaths (Adults & Children)	32 000	34 000
Low estimate	17 000	18 000
High estimate	55 000	58 000

Source: UNAIDS Epidemiological Fact Sheets (2006)

Although, studies concerning the state of HIV/AIDS in southern Sudan have been few and far between, those few studies which have been conducted have allowed for the provision of a partial amount of information (Brady et al., 2006). In fact, as the result of a series of surveys conducted by the U.S. Centers for Disease Control in 2002 through 2003 and published in the journal AIDS in 2006, a limited yet important amount of data was collected from several towns and provinces in southern Sudan (Brady et al.).

The studies were performed in the provinces of Western Equatoria and Bahr el Ghazal, which include the towns of Yei (located on the Sudanese border with Uganda and the DRC) and Rumbek (located several kilometers from the Ugandan border) (Brady et al., 2006). Behavioral and biological surveillance studies were conducted in antenatal clinics in Yei, Western Equatoria, Bahr el Ghazal and Rumbek, while "two-stage household cluster surveys" were performed in Yei, the surrounding 20 km outside of Yei and Rumbek (Brady et al., p. 942). 965 households were sampled in both Rumbek and Yei, where a total of 2443 individuals (aged 15-49) were surveyed and 2020 individuals were tested for HIV/AIDS, syphilis and herpes (Brady et al.). Almost 50% of participants in Yei were internally displaced, while another 35% reported that they had left the country at some point during the civil war (Brady et al., 2006). Additionally, "the survey sample was characterized by relatively high proportions of polygamous marriages and low literacy rates, especially in women and children" (Brady et al., p. 942). Blood specimens were collected from participants and transferred to a field laboratory, where they were tested for HIV-1/2 antibodies via parallel rapid tests (Brady et al.). Finally, all of the specimens which tested positive for HIV, as well as 20% of all HIV-negative specimens were transported to Uganda and Kenya, where they were later retested (Brady et al.).

The results of the study revealed an HIV prevalence rate of 0.4% in Rumbek and 4.4% in the town of Yei (Brady et al., 2006). In Yei, HIV was two times more common among women than men and four times more common among women aged 15-24 years than in men belonging to the same age group (Brady et al.). HIV prevalence among pregnant women was approximated at 0.8% in Rumbek and 3.0% in Yei (Brady et al.). In terms of the average age at first sex, the median age estimated for men was 17.5 years, while the median age for girls was estimated at 16.5 years (Brady et al.). Also, the use of condom during high-risk sexual activity "ranged from 0 to 8.3% among women and from 17.6% to 38.7% among men" (Brady et al., p. 943). In terms of the implications of social status, women who were widowed, separated or divorced seemed to be more at risk of contracting HIV, than women who were married or involved in a monogamous relationship (Brady et al.). Finally, the study allowed for the following assumptions about HIV/AIDS in southern Sudan at the time:

1. HIV/AIDS was in the process spreading into the generalized population (Brady et al.).
2. Rates in southern Sudan were lower than surrounding countries (Brady et al.).
3. Variations in infection rates existed between urban and rural areas (Brady et al.).
4. There appeared to be an inverse relationship between a town's distance from the southern Sudanese border with neighboring countries and its HIV infection rate (Brady et al.).

Of course, most of those assumptions remain true today, where according to experts, the South has perhaps partially avoided an AIDS epidemic as a result of the country's civil war, which isolated the region from surrounding countries with higher prevalence rates and limited both internal and external movement (Bismarck, 2006). However, as southern Sudan

is now faced with numerous post-war issues, the threat of HIV/AIDS is valid and there is an urgent need for the region to act quickly in order to curtail the spread of the disease (Brady et al., 2006).

Unfortunately, in southern Sudan AIDS is shrouded in ignorance, due to a low level of awareness among the population, where people often refrain from discussing the disease, as it is generally considered a private matter (Bismarck, 2006). Furthermore, individuals living with HIV/AIDS are usually stigmatized and in some areas, the disease is even coupled with witchcraft and curses (Bismarck). Denial has also proven to be a rather detrimental factor, as a significant amount of the population believes that AIDS is a disease that no one can contract (Bismarck). As such, a significant number of southern Sudan's youth take part in promiscuous sexual behavior based on the idea that AIDS only affects the population of neighboring countries like Kenya and Uganda (Bismarck). Inherently, the region's low literacy rate coupled with a lack of important infrastructure have kept vital information from most of the population, where people are ignorant of essential HIV facts including modes of transmission and methods of protection (Bismarck).

In fact, according to a study conducted by UNICEF in 2000, 75% of people living in Bahr el Ghazal and the territory of Jonglei reported that they had never heard of HIV/AIDS (Brady et al., 2006). Furthermore, in another study conducted by the WHO in 2005, it was concluded that "less than 4% of people could identify two methods of preventing HIV transmission in the town of Rumbek (which is located 520 km northwest of Juba)", while only 2% of people reported using a condom during their last sexual encounter (Brady et al., p. 944). Finally, in the town of Yei (southern Sudan's commercial center), only 1 in 4 people reported using a condom the last time they engaged sexual intercourse (Brady et al.).

Another factor deemed as a potential catalyst for an AIDS epidemic is the increased movement of people within the South including the return of hundreds of thousands of former refugees and internally displaced people (Bismark, 2006). In fact, the occurrence of transactional sex has significantly increased since 2005, especially in areas along the South's border with neighboring countries, where a surge in the traffic of military personnel and commercial transporters, as well as the "breakdown of social norms has created an environment conducive for the spread of the HIV virus" (Watchlist on Children and Armed Conflict, 2007, p. 24).

Meanwhile, the return of refugees has sparked fear in some experts involved in southern Sudan's healthcare arena, since most (refugees) have been returning home from counties with relatively higher adult HIV prevalence rates (Bismarck, 2006). For instance, in 2003, the adult HIV prevalence rate in the Kakuma refugee camp located in northwestern Kenya was estimated at 5% and while significantly lower than that of the nearby town of Lodwar (18% adult prevalence rate), it was still "slightly higher than the infection rate of 2.3% among pregnant women in the southern Sudanese towns of Rumbek and Yei" (UNHCR, 2006, para. 17). In fact, the return of refugees has already begun to take its toll in the South, where the Equatorias (western Equatoria, central Equatoria and eastern Equatoria) have been particularly affected, since these regions have received a significant number of former refugees from the Central African Republic, the Democratic Republic of Congo, Kenya and Uganda (UNHCR).

On the other hand, it should also be mentioned that a few healthcare experts have been rather cautious in their predictions regarding the return of refugees (Egan, 2005). In fact, there seems to be an acknowledgment that in spite of the greater risk of HIV infection

among refugees, "actual infection rates are highly context specific" (Egan, para. 2). Furthermore, among these experts, the return of refugees has been perceived as an opportunity, where returning refugees could prove to be somewhat of an asset to the region, since there exists the probability that they are perhaps better informed about HIV/AIDS than the rest of the population, who remained in the South during the war (Egan). Additionally, some returnees have been trained as healthcare professionals; as such, it has been suggested that they could assist in the process of educating the rest of the population about HIV/AIDS (Egan).

Table 2.10 provides the adult HIV prevalence rates of all of the countries bordering Sudan for the year 2006.

TABLE 2.10

Adult HIV Prevalence Rate of Countries Bordering Sudan

Countries	Adult HIV Prevalence Rate (%)
Central African Republic	10.7
Uganda	6.7
Kenya	6.1
Chad	3.5
Democratic Republic of Congo	3.2
Ethiopia	0.9 – 3.5
Eritrea	1.3 – 3.9
Egypt	<0.1 [<0.2]

Source: UNAIDS Epidemiological Fact Sheets (2006)

Essentially, as an impoverished region, southern Sudan is hardly prepared to deal with HIV/AIDS, as the fight against the spread of the disease has to compete with other pressing concerns (UNHCR, 2007). However, despite the lack of resources, the southern Sudanese government has recognized the breadth of the situation and as such has made a concerted effort to deal with the problem at hand (UNHCR). Perhaps, one of the most important milestones in the South's fight against HIV has been the 2006 establishment of

the Southern Sudanese HIV/AIDS Commission, which was created by vice president Salva Kiir, in order to create AIDS' policy and organize the region's response (UNHCR, 2007). In spite of limited financial resources, the commission has put forth several long term goals including the completion of a comprehensive survey for the South and the creation of partnerships with many NGOs currently active in the region (UNHCR). In fact, the commission has already partnered with the WHO, where both organizations along with the Ministry of Health have been involved in the improvement of Voluntary Counseling and Testing (VCT) Centers, as well as Anti-Retroviral Treatment (ART) services in the region; thus, the WHO currently runs three antiretroviral drug treatment sites in the towns of Juba, Wau and Malakal (UNHCR). Therefore, the establishment of an AIDS commission coupled with the government's other efforts has proven to be rather essential to the region's response, since it demonstrates a determination to stem the spread of HIV/AIDS (UNHCR).

On the other hand, Sudan has also been looking to its next door neighbor Uganda for ideas on how to tackle AIDS and rightfully so, since the South bears many similarities to Uganda during the early phases of its own epidemic (United Nations Office for the Coordination of Humanitarian Affairs, 2007). In fact, the situation in present day southern Sudan mirrors that of Uganda in the mid 1980's, where the region (southern Sudan) along with its new government is seeking to recover from decades of civil instability (AVERT, 2006). As such, southern Sudan is hoping to utilize Uganda's famed ABC approach, where the South's new government along with other parties involved in the provision of healthcare is hoping to implement an HIV prevention strategy based on the three main components of the ABC approach including abstinence, monogamy and condom use (USAID, 2006). Of

course, Uganda's fight against HIV/AIDS encompassed far more than the ABC approach, since the Ugandan government implemented a multi-sectorial approach, which included a high level of political support, multi-sectorial planning, interventions addressing issues linked to women's rights, stigma and discrimination, as well as support from faith-based organizations (Green et al., 2002).

As such, while Uganda serves as a model of success in terms of reducing its HIV prevalence rate, southern Sudan will have to closely examine its own epidemic in order to implement an appropriate HIV prevention strategy (Green et al., 2002). Inherently, much remains to be accomplished in the South; and while the region is faced with many other issues in addition to its healthcare problems, the spread of the disease has to be halted via a multifaceted approach, which utilizes the strengths of all parties involved including political leaders, NGOs, faith-based organizations and local communities (Bismarck, 2006). In other words, "the challenges of containing HIV/AIDS in southern Sudan are staggering, but the opportunity to prevent the disease from spreading exists now" (Bismark, para. 12).

CHAPTER 3

LITERATURE REVIEW: UGANDA

Uganda, which is comparable in size to the state of Oregon, is located in East Africa and bordered by five countries including Sudan, Tanzania, Rwanda, the Democratic Republic of Congo and Kenya (BBC, 2007). The African nation is home to approximately 30.2 million people belonging to numerous ethnic groups, which account for more than 40 languages spoken throughout the country (Central Intelligence Agency's [CIA] World Factbook, 2007). English is the official language, but Luganda, which is used predominantly in urban areas, is most widely spoken (CIA's World Factbook). Swahili, a popular language used throughout eastern and central Africa is barely relevant in the east African nation (CIA's World Factbook).

Table 3.1 provides a brief demographical profile of Uganda, by providing some key indicators for the years 2000 and 2005.

TABLE 3.1

Uganda's Demographic Profile

Indicator	2000	2005
Total Population	24.3	28.8
Population growth rate (%)	3.1	3.5
Fertility rate, total (births per woman)	7.0	7.1
Birth rate (births/1000)	47.5	48.1
Mortality rate, infant (per 1,000 live births)	85.0	79.0
Mortality rate, under-5 (per 1,000)	145.0	136.0
Life expectancy at birth (years)	45.1	50.0
Literacy rate, Adult total (% - ages 15 and above)	67.0	69.9

Source: The World Bank and the CIA's World Factbook (2007)

Uganda's ethnic groups consist of indigenous Africans such as the Baganda and Acholi, as well as non-indigenous groups including Arabs, Indians and Europeans (CIA's World Factbook, 2007). The majority of Ugandans are Christians, where Roman Catholics and Protestants make up 66% of the population, while 16% practice Islam and the remaining 18% adhere to indigenous religions or practices (CIA's World Factbook).

Economically, Uganda is considered one the poorest countries in the world and is essentially an agrarian economy, where an estimated 80% of the population earns a living via the agricultural sector (BBC, 2007). As such, exported commodities include coffee (which accounts for a significant percentage of export revenues), tea, tobacco, corn, sesame, cotton and flowers (CIA's World Factbook, 2007). The east African nation also has a considerable amount of natural resources, which include fairly large deposits of copper and cobalt (CIA's World Factbook).

Table 3.2 provides a brief economic profile of Uganda for the years 2000 and 2005.

Table 3.2

Uganda's Economic Profile

Economic Indicator	2000	2005
GDP (current US$)	5.9 billion	8.7 billion
GDP growth (annual %)	5.6	6.6
GDP per capita ($US dollars)	244	303
GDP purchasing power parity (US$ billions)	26.2	47.76
GNI, Atlas method (current US$)	6.4 billion	8.0 billion
GNI per capita, Atlas method (current US$)	260.0	280.0
Inflation, GDP deflator (annual %)	3.8	7.8
Agriculture, value added (% of GDP)	37.3	32.7
Industry, value added (% of GDP)	20.3	24.8
Services, etc., value added (% of GDP)	42.4	42.5

Source: The World Bank (2006)

The Ugandan economy experienced a significant decline during the 1970's as a result of political instability including the rule of Dictator Idi Amin, whose many misguided measures included the expulsion of Asian business owners (CIA's World Factbook, 2007). In fact, between 1971 and 1985, the country's per capita GDP decline by approximately 40%; however, in 1986, the government along with new president Yoweri Museveni began the process of economic rehabilitation via the assistance of several foreign nations and international agencies (CIA's World Factbook).

Therefore, based on "improved incentives for production and exports, reduced inflation, enhanced domestic security and the return of exiled Asian entrepreneurs", the Ugandan economy managed to experience significant growth and solid performance during the 1990's (CIA's World Factbook, 2007, para. 2). In fact, the country's economy continues to improve, where it's GDP has been estimated to increase at an average rate of 6% during the next 3 years, thereby fostering a reduction in poverty and an increase in investor's confidence (World Bank, 2006). Today, most of Uganda remains relatively stable, except for the northern region of the country, where a brutal conflict between the Lord's Resistance Army and the Ugandan government's forces continues to threaten the lives of many civilians (CIA's World Factbook).

History of HIV/AIDS in Uganda

The first case of AIDS reported in Uganda occurred in 1982 on the shores of Lake Victoria in the Rakai district, barely a year after the disease was first identified by the U.S. Centers for Disease Control and Prevention (CDC) (AVERT, 2006). However, it has been postulated that AIDS, which was initially referred to as the "slim disease" in Uganda, had already begun spreading in that same location during the late 1970's (AVERT). As such,

some theories have suggested that the east African nation had something of a head start on the rest of the world, in terms of national epidemics (AVERT).

When HIV initially began spreading in Uganda, major urban centers, as well as areas along the country's main highways were the hardest hit (AVERT, 2006). Inherently, this led many Ugandans to assume that HIV was contracted only by prostitutes and adults who traveled extensively (AVERT). Of course, despite the high infection rates observed among sex workers and truck drivers, they weren't the only ones contracting the virus, as the country's AIDS' burden doubled every six months during the early 1980's (AVERT). Consequently, by 1986, Uganda documented its 900th case of an HIV infection and the epidemic had become a generalized one with the disease affecting every single district within the country (Blas et al., 2006).

Uganda's National Response

Initially, Uganda was hardly prepared to deal with such a public health crisis, since years of civil unrest during the 1960's and 1970's had destabilized the country resulting in economic decline and an unstable political environment (Cohen, 2003). In fact, Uganda's healthcare system, which had once been heralded as one of the best in Africa, had become an unorganized body of unequipped hospitals and unqualified healthcare personnel by the 1980's (Cohen).

Furthermore, as AIDS began to create a public health crisis in Uganda, the east African nation was also undergoing an era of change, as its 15 year long civil war came to an end and a sense of political and civil stability finally seemed possible (Gray et al., 2006). Inherently, the country was now faced with many post war challenges, yet its overall stabilization also helped to create a political atmosphere favorable to focusing attention and

resources on AIDS (Gray et al.). In other words, it now seemed as good a time as any to recognize the gravity of the threat posed by the disease and fortunately for Uganda, along with its new stability came a new leader, who immediately acknowledged the implications of the epidemic and as such was prompt in making HIV/AIDS an important part of his government's agenda (Gray et al.).

When President Yoweri Museveni assumed leadership in 1986, he immediately acknowledged the existence of the disease in his country via the admission of the Ugandan Health Minister, during a World Health Assembly meeting in Geneva (Green et al., 2006). Consequently, he launched a national campaign based on a multi-sectorial approach, which endorsed partnerships between political, religious and educational institutions, as well as non-governmental organizations, local communities and people living with HIV/AIDS (Green et al.). It was also during this time that the new head of state deemed it necessary to embark on a nationwide tour, where he engaged in face-to-face interactions with Ugandans, while encouraging openness, communication and strong leadership (Green et al.).

In terms of national programs, the government's first order of business was the establishment of the Ugandan National AIDS Control Program (NACP), which began an "aggressive public media campaign that included print materials, radio, billboards and community mobilization" (Green et al., 2006, p. 8). Since the country was recovering from a civil war, the Ugandan government utilized low-tech mass communication strategies, in response to the fact that many people were extremely poor and as a result had zero access to televisions or other high tech devices (Green et al.). Additionally, the NACP (which was renamed the STD/AIDS Control Programme in 1994) also began the process of training thousands of healthcare workers including community-based AIDS counselors and health

educators (Green et al.). Finally, the NACP was also responsible for the improvement of blood transfusion services, as well as epidemiological surveillance, which translated into a national sentinel surveillance system that immediately began monitoring AIDS cases in the country and has continued to do so since 1986 (Green et al.).

Following the establishment of the NACP was the creation of the Ugandan AIDS Commission (UAC), whose primary purpose was to organize and oversee the national AIDS strategy via an operational plan that promoted the creation of AIDS control programs in other ministries including defense, education, gender equality and social affairs (Musinguzi et al., 2001). In other words, the primary purpose of the UAC was to make certain that "all relevant sectors were actively involved in the fight against AIDS through proper coordination, joint planning, joint monitoring and information sharing" (Musinguzi et al., p. 1113).

The government also recognized the detrimental effects of stigma and discrimination in the early phase of the epidemic and as a result began to place a "strong emphasis on the empowerment of women and girls, while aggressively fighting stigma and discrimination against people living with HIV/AIDS" (Green et al., 2006, p. 9). In fact, the Ugandan government made a concerted effort to encourage the representation of both women and youth in parliament, where it later became the law that "women make up a minimum one-third of parliament members" (Green et al., p. 9). Additionally, the president also created a Ministry of Women's Affairs, which allowed for the promotion of equality among men, women and youth. In terms of supporting people infected with the AIDS virus, the Ugandan AIDS Support Organization (TASO) was established in 1987, where its primary

purpose was to campaign against stigma and discrimination, while "pioneering a community-based approach for the care of people living with HIV/AIDS" (Green et al., p. 10).

Religious organizations also played a key role in Uganda's response to HIV/AIDS, where many leaders and organizations began to actively participate in AIDS education and prevention activities (Green et al., 2006). In fact, religiously affiliated hospitals were among the first in Uganda to establish care and support programs for people living with AIDS, where both the Islamic Medical Association of Uganda (IMAU) and the Protestant Church began to train their leaders to provide AIDS education, as early as 1990 (Green et al.). Finally, the Catholic Church in collaboration with their mission hospitals supported AIDS widows and orphans, by "designing mobile home care projects" and other special assistance programs (Green et al., p. 11).

As President Museveni's multi-sectorial approach began to take shape, he also started to promote the so-called ABC approach, which was adopted by the Ugandan Ministry of Health in 1987 and emphasized prevention via abstinence, faithfulness/monogamy and consistent condom use (Green et al., 2002). In other word, the government implemented educational strategies, which stressed the idea of abstinence for young Ugandans (ages 15 - 24), partner reduction for sexually active adults (an idea also referred to as "zero grazing") and condom use for all individuals, especially those involved in high risk sexual activities (Green et al.). Inherently, the ABC approach was based on a policy of candidness, which allowed Ugandans to address and understand the issues associated with HIV/AIDS, while placing an emphasis on maintaining a high level of respect for wide-ranging opinions and ideologies (Green et al., 2002).

The ABC Approach

The ABC approach, which has now become synonymous with Uganda's success story, refers to "individual behaviors, as well as the program approach", which is designed to be most effective when dealing with generalized epidemics via an emphasis on abstinence, faithfulness and the correct use of condoms (Cohen, 2003, para. 3). Inherently, the approach has been hailed as a "comprehensive and valuable prevention strategy, due to its targeting of specific populations, the circumstances they face and the behaviors within those populations which require change" (United States Global AIDS Coordinator, 2006, p. 2). As such, the effectiveness of the program lies in its applicability to various human behaviors and circumstances, where it is taken into account that "a single preventive approach to something as complex as sexual behavior can perhaps never appeal to all people" (Christian Connections for International Health [CCIH] et al., 2006, p. 11).

Abstinence

The abstinence component of the ABC approach encourages the idea of delayed sexual activity among youth, as a way of reducing their chances of contracting HIV and other sexually transmitted diseases (STDs) (United States Global AIDS Coordinator, 2006). The importance of emphasizing abstinence among young people in Uganda stems from the fact that in the east African nation, as well as in most of sub-Saharan Africa, almost half of all HIV infections occur in the 15 to 24 year old age group (CCIH et al., 2006). In fact, in sub-Saharan Africa, the AIDS epidemic has taken an enormous toll on young people, where 1 in every 14 young adults between the ages of 15 and 24 years is infected with HIV; and in 2006, approximately 50% of all new HIV infections occurred among individuals within this age group (CCIH et al.).

Table 3.3 provides a glimpse of pre-marital sexual activity among youth in several African nations.

TABLE 3.3

Pre-marital Sex Among Youth Ages 15 to 24 in Sub-Saharan Africa

Country and Date of Survey	Percent of Youth Ages 15 – 24 Reporting Pre-Marital Sex in Last Year	
	Male	Female
Benin 2001	53	44
Botswana 2001	39	42
Burkina Faso 1998/9	34	24
Cameroon 1998	58	52
Cote D'Ivoire 1998	61	56
Ethiopia 2000	16	2
Ghana 2003	24	30
Guinea 1999	52	27
Kenya 2003	41	21
Malawi 2000	49	27
Mali 2001	36	29
Mozambique 2003	67	54
Namibia 2000	59	46
Nigeria 2003	29	32
Rwanda 2000	9	4
Tanzania 1999	57	39
Togo 1998	46	53
Uganda 2000/01	31	27
Zambia 2003	33	28
Zimbabwe 1999	34	15
Average	41	32

Source: Demographic and Health Surveys (DHS)

Inherently, sub-Saharan Africa's youth have been affected by a number of detrimental factors including a lack of information, traditional social values and poverty (CCIH et al., 2006). Furthermore, sexual activity usually begins early and prior to marriage in the region, where females (whether voluntarily and involuntarily) are more likely to engage in sexual activity at an earlier age in comparison to males (CCIH et al.). In fact, in most countries, the median age at first intercourse falls somewhere between 14 -19 years for

young adults, where early sexual activity is more prevalent in western and central Africa, as opposed to eastern and southern Africa (CCIH et al.).

In Uganda, the promotion of abstinence among young men and women resulted in an increase in "median age at first sex by 1.2 years for girls and 1.7 years for boys between 1989 and 2000" (Bessinger et al., 2002, p. 1). Furthermore, the number of young women between the ages of 15-19 years, who reported ever having sex dropped from 74% to 51%, while among men the figure decreased from 68% to 42% (Bessinger et al.). In terms of premarital sex, the number of young women (aged 15-42 years) engaging in sex before marriage decreased from 53% to 16%, while among young men there was a decline from 60% to 23% (Bessinger et al.). Finally, as recently as 2000, demographic and health surveys conducted in Uganda reported that approximately 70% of unmarried youth between the ages of 15 and 19 reported having no sexual partners during the previous year (Bessinger et al.).

Monogamy and Fidelity

The second component of the ABC approach emphasizes the importance of "practicing fidelity within marriage and other sexual relationships as a way to reduce the risk of exposure to HIV" (United States Global AIDS Coordinator, 2006, p. 3). In other words, fidelity-focused programs primarily targets adults involved in sexual relationships by promoting several key concepts including mutual faithfulness in relationships and an avoidance of casual partnerships (United States Global AIDS Coordinator). Furthermore, these programs often seek to reduce the occurrence of cross-generational sex, transactional sex, rape and incest (United States Global AIDS Coordinator).

In Uganda, the message of "zero grazing" became a prominent feature of the "be-

faithful" approach, where essentially the entire population was encouraged to consider having fewer non-regular sex partners; but the message seemed especially important for married couples, since in Uganda it was (and perhaps still is to some extent) quite common for married men to seek sexual relationships outside of their marriage (CCIH et al., 2006).

Table 3.4 illustrates the distribution of age differences between couples for several sub-Saharan African nations.

TABLE 3.4

Percentage Distribution of Couples by Age Difference Between Spouses According to Country and Survey Year

Country	Wife is older or same Age	Husband is 1 – 4 years older	Husband is 5 – 9 years older	Husband is > 10 years older
Benin, 2001	4	25	43	28
Mali, 2001	2	15	32	51
Zambia, 2001	2	39	47	13
Gabon, 2000	7	24	36	33
Ethiopia, 2000	1	23	49	27
Malawi, 2000	4	41	39	16
Rwanda, 2000	12	33	29	36
Nigeria, 1999	3	9	40	48
Togo, 1998	5	28	38	28
Kenya, 1998	3	24	52	23
Senegal, 1997	0	7	30	62

Source: Demographic and Health Surveys (DHS)

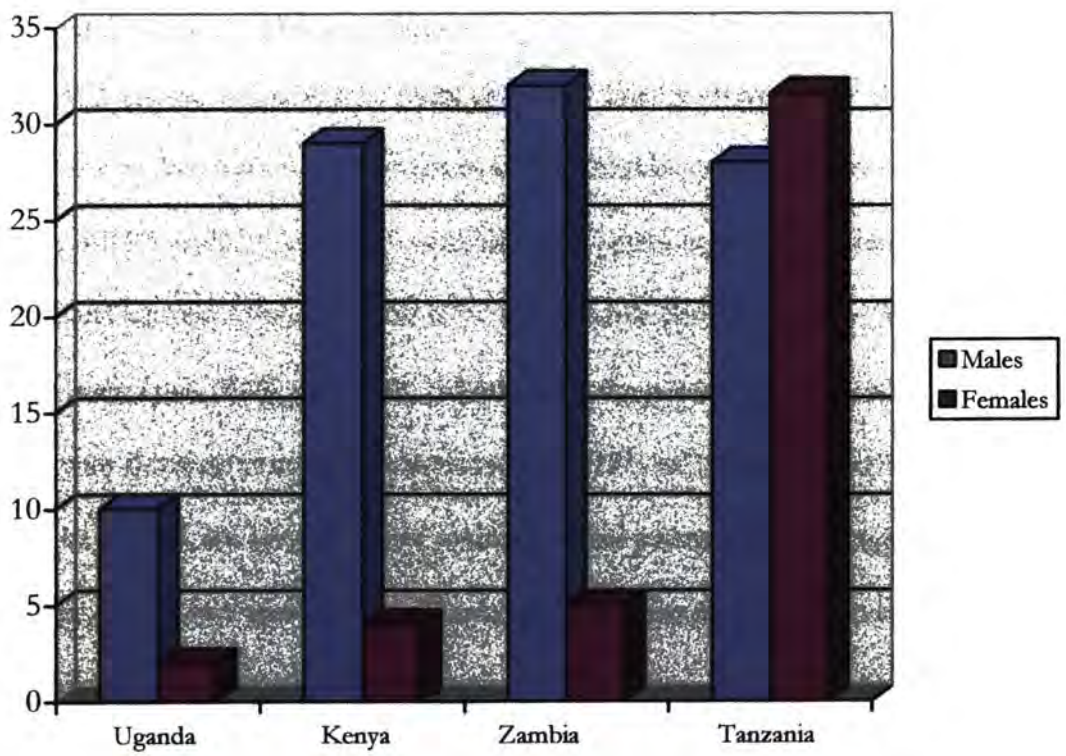
Young women all over sub-Saharan Africa are particularly affected by the prevalence of multiple partnerships among married men, where many (young women) tend to have spouses who are at least five years older (CCIH et al., 2006). As a result, such marriages tend to have higher rates of infidelity, where young women are often unable to control any aspect of their marriages and are therefore at risk of contracting the AIDS virus and other sexually transmitted diseases from their husbands (CCIH et al.). However, it should be noted that the

prevalence of multiple sex partnerships is also observed among young unmarried African men, which can be partially attributed to the fact that men in general often feel pressured by society to demonstrate their virility (CCIH et al.).

Figures 3.5 and 3.6 illustrates the effect of the ABC approach in Uganda, by comparing the country's rate of multiple partnerships to those of Kenya, Zambia and Tanzania in 1995, while Figure 3.6 illustrates the effect of the government's "zero grazing" message in both rural and urban areas.

FIGURE 3.5

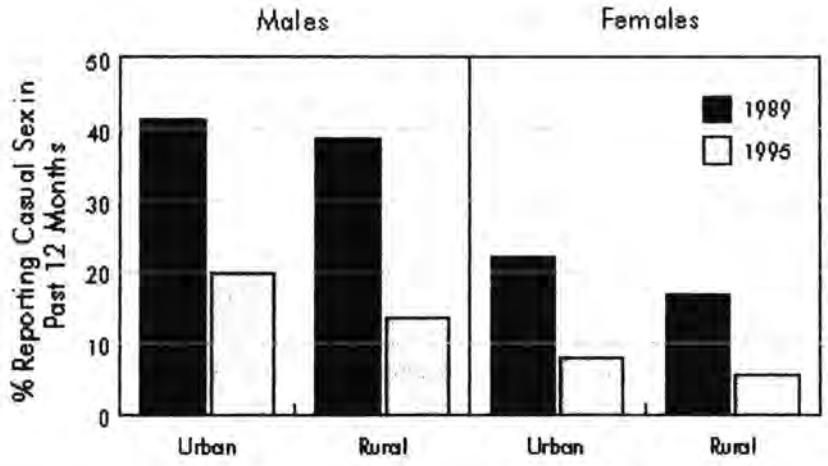
Multiple Sexual Partnerships among Sexually Active Men and Women



*Percent of sexually active men and women ages 15 to 49, who have had sexual intercourse with more than one partner in the last 12 months
Source: Demographic and Health Surveys (DHS)

FIGURE 3.6

Casual Sex in Rural and Urban Areas in Uganda



Source: WHO/Global AIDS Program, Geneva

In Uganda, an increase in monogamy and fidelity proved to be the most significant contributor to the country's reduction in its HIV incidence, where between 1989 and 1995 both the WHO and UNAIDS reported that the "percentage of Ugandan women with one or more casual partners dropped from 16% to 6%, while decreasing from 35% to 15% for men" (Green et al., 2006, pp. 9-10). Additionally, the percentage of men engaging in sexual activity with three or more people declined from 15% in 1989 to 3% in 1995 (Green et al.).

In general, the prevalence of multiple sexual partnerships was significantly reduced for all age groups in Uganda, where "males in 1995 were more likely to be married and keep sex within their relationships" and extramarital sex among women decline significantly (Green et al., 2006, p. 9). Also, the change in sexual behavior was observed in both urban and rural areas, as the "be faithful" and "zero grazing" message became perhaps one of the most consistent and prevailing messages of Uganda's response (Green et al.).

Condom Use

The final component of the ABC approach emphasizes the importance of "access to condoms for those individuals most at risk for transmitting or becoming infected with HIV" (United States Global AIDS Coordinator, 2006, p. 3). In other words, this strategy targets individuals "engaging in casual sexual encounters, sex in exchange for money or favors, sex with an HIV-positive partner or one whose status is unknown, using drugs or abusing alcohol in the context of sexual interactions and using intravenous drugs" (United States Global AIDS Coordinator, p. 3). Inherently, condom use programs stress several important ideas including the significance of risk reduction, the importance of proper use and the promotion of the idea that a condom does not provide absolute protection against sexually transmitted diseases (United States Global AIDS Coordinator).

In Uganda, condoms were hardly promoted during the early years of the government's response, as more resources were poured into abstinence and partner reduction programs (Green et al., 2006). In fact, in most of Africa, the use of condoms remains relatively low and this is particularly detrimental, since the majority of HIV infections occur outside of high risk groups (Green et al.). On one hand, low condom usage on the continent can be partially attributed to the fact that in most African countries, the idea still exists among the general population that condoms implies a lack of trust in a relationship; and on the other hand, many people view condoms as undesirable, since most believe that its usage leads to the diminishment of pleasure during sexual intercourse (Green et al.). Inherently, in spite of the constant threat posed by HIV, the demand for condoms in most of sub-Saharan Africa remains relatively low (Green et al.).

Table 3.7 illustrates the prevalence of condom use in sub-Saharan Africa by providing usage rates for both men and women in several countries.

TABLE 3.7

Condom Use at Last Sex in Sub-Saharan Africa

Country and Year	Percent of sexually active adults ages 15-49 using a condom at last intercourse with any type of partner	
	Male	Female
Benin 2001	16	4
Ethiopia 2000	5	1
Ghana 2003	18	9
Kenya 2003	17	5
Malawi 2000	14	5
Mali 2001	10	2
Mozambique 2003	14	6
Nigeria 2003	16	5
Zambia 2001	19	12

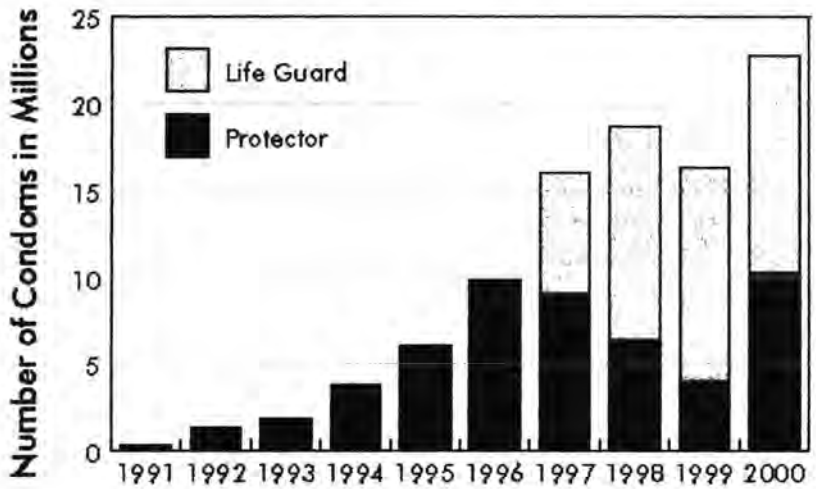
Source: Demographic and Health Surveys (DHS)

While the Ugandan government was hesitant to promote the use of condoms, the African nation did make some progress during the 1990's, as it experienced some positive changes (Green et al., 2006). Hence, between 1988 and 1995, the percent of married women using condoms increased from 0% to 0.8%, while condom usage rates for unmarried Ugandan women improved by 15.4% (Green et al.). Furthermore, between 1995 and 2000, the percentage of married women using condoms increased from 0.8% to 1.9%, while for sexually active unmarried women, the figure increased from 15.4% to 29% (Green et al.). Also, among married men condom use increased from 3% to 5%, while among unmarried men (aged 15-24), reported condom use increased from 39% to 57% (Green et al.). Essentially, more significant changes were observed in individuals who were not married, as opposed to those who were married (Green et al.).

Figure 3.8 illustrates the change in the Ugandan government's attitude towards the promotion of condoms during the nineties.

FIGURE 3.8

Number of Socially Marketed Condoms Sold in Uganda



Source: US Agency for International Development (2002)

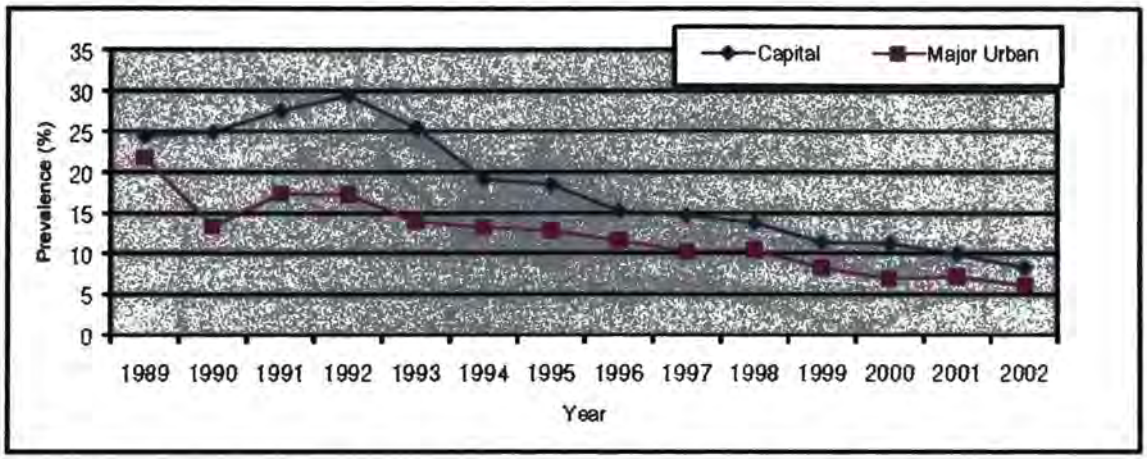
ABC Success in Uganda

After years of promoting the ABC approach and implementing a multi-sectorial response, Uganda managed to change the course of its HIV epidemic, where by 2000 the east African nation had significantly reduced its infection rates (Green et al., 2006). As such, after the country's adult HIV prevalence reached its peak at about 15% during the early nineties and the prevalence rate among urban pregnant women increased to approximately 30%, Uganda began to make considerable progress during the ensuing years (Green et al.).

Figure 3.9 illustrates the decline in prevalence rates among antenatal clinic attendees from 1987 until 2002, by providing antenatal prevalence rates for Kampala and other sites.

FIGURE 3.9

Median HIV Infection Prevalence Rates Among ANC Attendees in Kampala and Major Towns (Mbarara, Jinja, Mbale and Tororo)



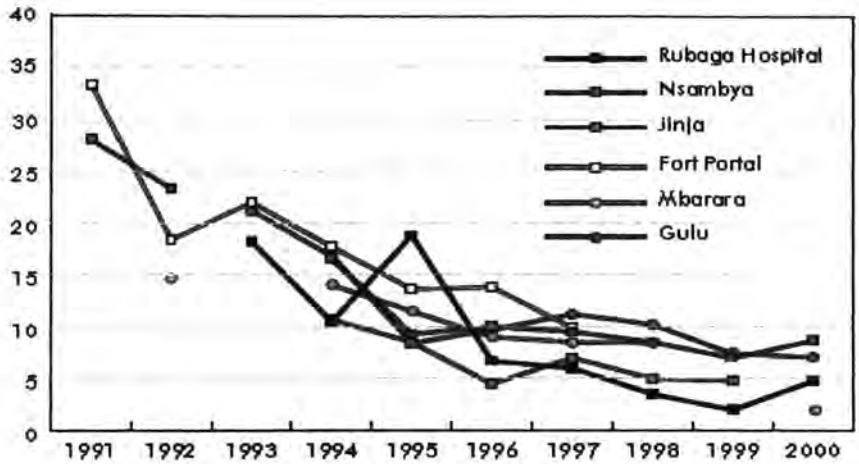
Source: Uganda Ministry of Health – STD/HIV/AIDS Surveillance Report (2003)

According to the Ugandan Ministry of Health, HIV prevalence among antenatal clinic attendees declined from 29.4% in 1992 to about 8.3% in 2002, where the average prevalence for Kampala sites were 11.4%, 11.2% and 9.9% in 1999, 2000 and 2001 (Uganda's Ministry of Health, 2006). Furthermore, prevalence among antenatal clinic attendees also decreased significantly in other urban centers, where by 2002 the average prevalence rate of major towns surrounding Kampala was estimated at 7.2% (Uganda's Ministry of Health). Perhaps the most important indicator of Uganda's progress was the sharp decline in seroprevalence among young women (aged 15-19 years), where by 2000 the HIV prevalence rate for this demographic has dropped to less than 10% in most major hospitals in the east African nation (Uganda's Ministry of Health).

Figure 3.10 illustrates the decline in seroprevalence among pregnant women aged 15-19 years for several major hospitals in Uganda during the 1990's.

FIGURE 3.10

HIV Prevalence among 15-19-year-old Pregnant Women



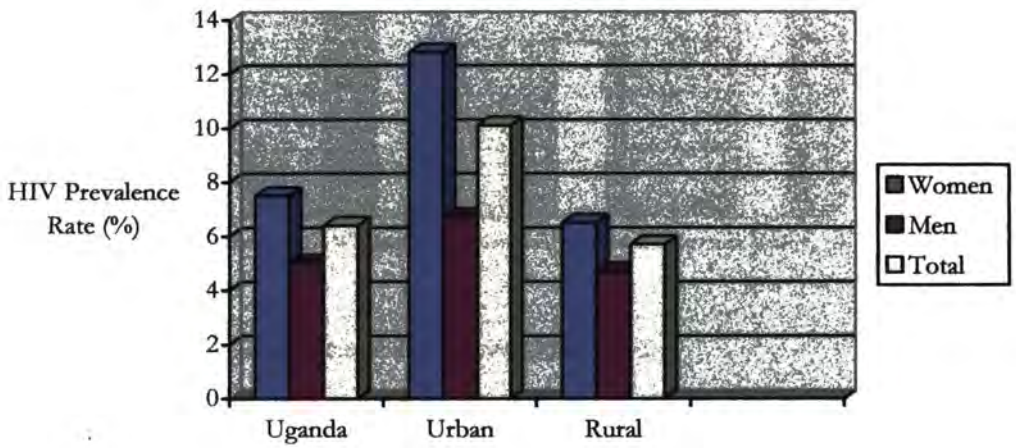
Source: U.S. Agency for International Development (2002)

As the result of a sero-behavioral survey conducted in Uganda for 2004 through 2005 (where more than 18,000 adults and 8,000 children were tested), the country's adult prevalence rate was estimated at 6.4% (Uganda's Ministry of Health, 2006). Of course, HIV/AIDS is still more prevalent among women than men, while urban residents are more likely to be infected with the virus than their rural counterparts (Uganda's Ministry of Health). Furthermore, for both males and females seroprevalence increases with age, reaching 12% among women in their early thirties and 9% among men between the ages of 35 to 44 years (Uganda's Ministry of Health). In terms of regional prevalence, HIV prevalence is highest in Kampala (8.3%), while the regions of the West Nile and Northeastern Uganda have the lowest adult prevalence rates of the entire country (Uganda's Ministry of Health). Finally, for both sexes, HIV is more prevalent among those who are widowed or divorced/separated, than individuals who are married (Uganda's Ministry of Health).

The following figures partially illustrate the results of data collected from the 2004-2005 Uganda HIV/AIDS Sero-Behavioral Survey (UHSBS).

FIGURE 3.11

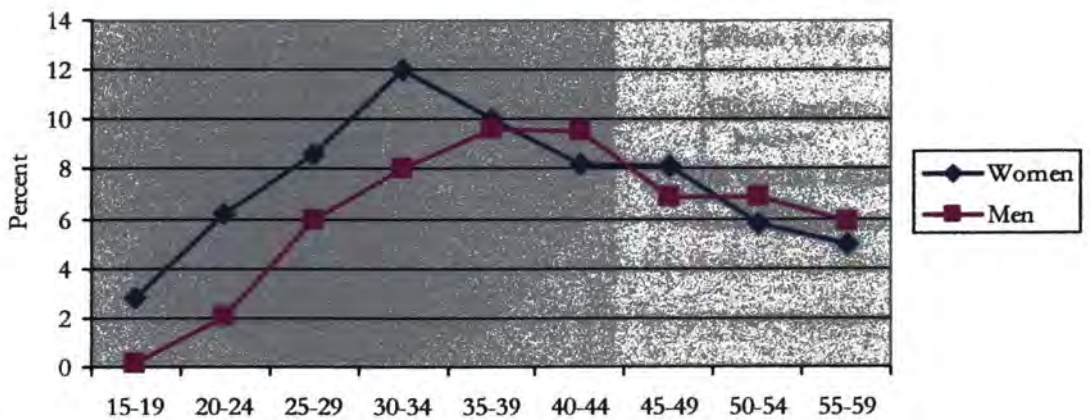
Uganda HIV Prevalence (2004-2005)



Source: Uganda HIV/AIDS Sero-Behavioral Survey 2004-2005 (2006)

FIGURE 3.12

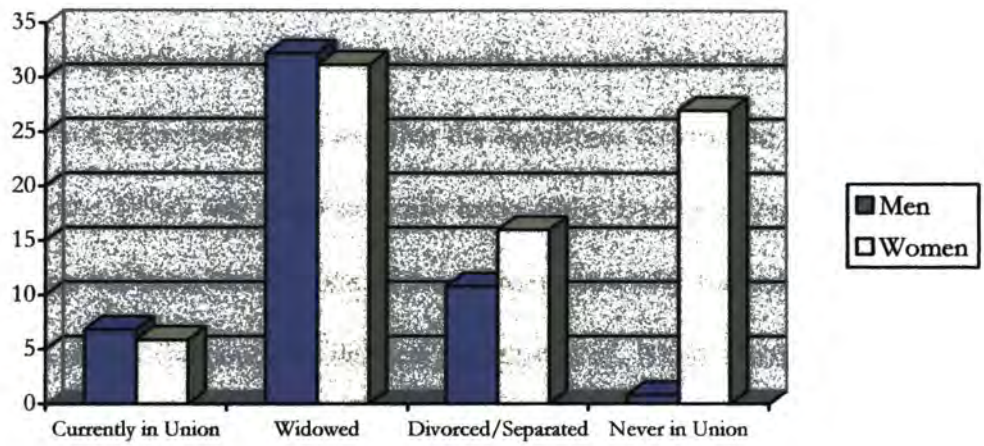
HIV Prevalence by Age



Source: Uganda HIV/AIDS Sero-Behavioral Survey 2004-2005 (2006)

FIGURE 3.13

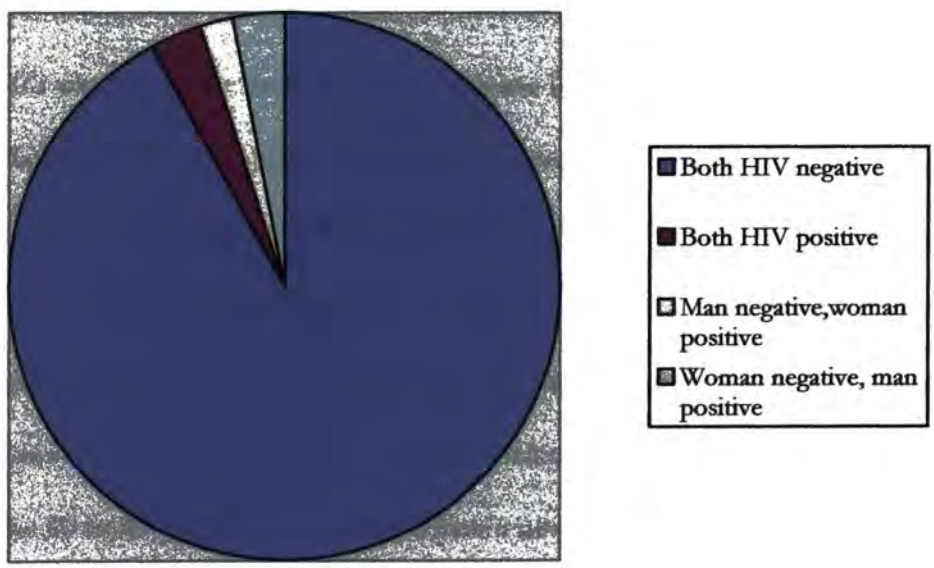
HIV Prevalence by Marital Status



Source: Uganda HIV/AIDS Sero-Behavioral Survey 2004-2005 (2006)

FIGURE 3.14

HIV Prevalence in Couples



Source: Uganda HIV/AIDS Sero-Behavioral Survey 2004-2005 (2006)

Questions Regarding Uganda's ABC Success

While Uganda's ABC prevention strategy has been recognized as one of the primary forces behind the east African nation's success in terms of reducing its HIV seroprevalence, many experts have questioned the accomplishments associated with the approach (Bernard et al., 2006). In fact, some have suggested that the significant decrease in prevalence which occurred during the 1990's was mathematically impossible; therefore, mortality, rather than behavioral change has been cited as one of the primary causes for the reduced prevalence experienced in some of the country's districts (Bernard et al., 2006). Furthermore, researchers have also suggested that Uganda's seroprevalence may be increasing once again, where HIV data reveals rising prevalence and incidence rates since 2000 (Bernard et al.).

In a study conducted by the Medical Research Council Programme on AIDS/Uganda Virus Research Institute (MRC/UVRI), data was collected from a rural cohort (established in 1989), as well as twenty-four antenatal clinics throughout Uganda; and researchers concluded that the achievements publicized by the Ugandan government during the mid 1990's was to some extent due to an increase in mortality coupled with out-migration (Bernard et al., 2006). With regards to the suggestion of threatening upward trends in Uganda's seroprevalence, data collected from the rural cohort revealed an increase in the HIV prevalence of males from 5.6% in the year 2000 to 6.5% in 2004, while for women the figure increased from 6.9% to 8.8% (Bernard et al.). Furthermore, "rigorous analysis of the rural cohort revealed an increase in HIV incidence since the year 2000 among males and females in the 40 to 49 year old age group, where a new incidence peak was observed among men" (Bernard et al., para. 8). Finally, in regards to the 24 antenatal clinics studied, data

collected since 2002 revealed declining prevalence rates at 7 sites, increasing prevalence at 10 sites and stable prevalence rates at the remaining 7 sites (Bernard et al.).

In general, researchers have attributed upward trends in HIV prevalence to several factors including an ABC policy that seems to place significantly more emphasis on abstinence and faithfulness rather than condom use, an increase in risky behavior and constant condom shortages (Bernard et al.). However, it should be noted that while researchers involved with the study consider the data collected to be statistically significant (as well as epidemiologically important for public health), it has also been suggested that such significance is not strong (Bernard et al.).

In response, the Ugandan government maintains its stance that the ABC approach had a significant impact on the country's seroprevalence during the 1990's and still continues to play a significant role in the fight against HIV/AIDS (Bernard et al., 2006). Furthermore, the Ugandan Ministry of Health declared its mission to control its seroprevalence by "re-emphasizing its prevention efforts with a goal to consolidate previous successes" (Bernard et al., para. 10). In other words, the approach remains relevant in terms of the country's HIV prevention efforts, where the Ugandan government plans to continue utilizing the HIV prevention strategy, while implementing policies which can rectify any shortcomings (Bernard et al.).

Replicating Uganda's Success

While there are still several issues needing be addressed in Uganda today, the east African nation has been credited worldwide for the major progress it experienced during the 1990's, where positive changes in A, B and C behaviors played a significant role in decreasing the country's seroprevalence (Cohen, 2003). In other words, "increases in all

three of the ABC behaviors led to reduced HIV rates following a comprehensive national message that HIV prevention was of the utmost importance to the country and the responsibility of all of its citizens" (Cohen, para. 12). Of course, the most significant behavioral change for Uganda was an increase in monogamy and fidelity and rightfully so, since evidence has suggested that a reduction in the number of sexually active partners among sexually active individuals is most pivotal in curbing an AIDS epidemic (Low-Beer et al., 2003).

As such, while Uganda was successful in reversing its HIV epidemic via the ABC approach, much debate has been prompted over whether or not such success can be replicated in other countries, especially those of sub-Saharan Africa (Low-Beer et al., 2003). Of course, several countries have reaped the benefits of the ABC approach, where positive changes in all three ABC activities have occurred (CCIH et al., 2006). In fact, in Zambia, HIV prevalence rates have declined in recent years as a result of an increase in abstinence among urban youth, while in Jamaica, abstinence media campaigns are beginning to foster behavioral changes among young men and women (CCIH et al.). Furthermore, in Cambodia and Thailand, HIV/AIDS rates have declined as a result of increased condom use, while in the Dominican Republic infection rates have slowed due to an increased in monogamy and fidelity, as well as increased condom use (CCIH et al.).

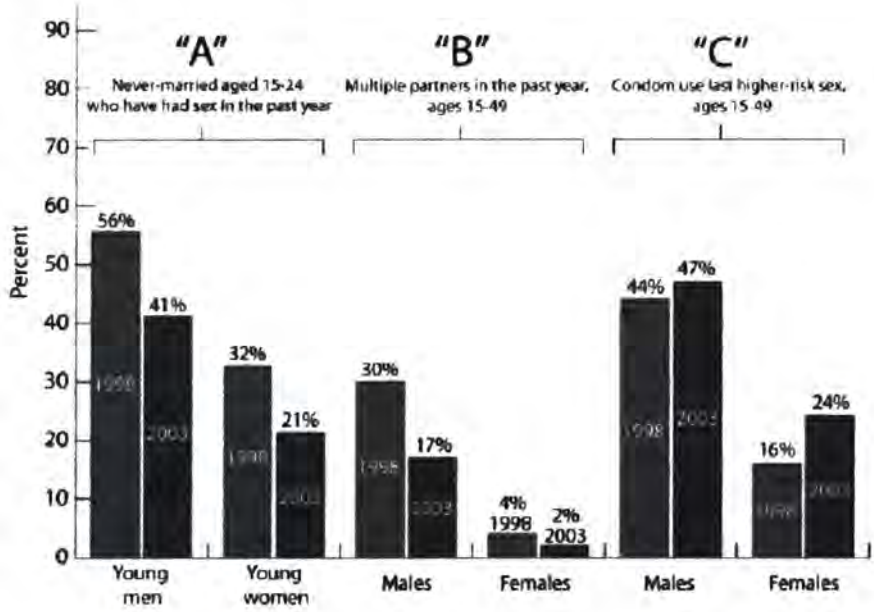
Perhaps, the most recent example of ABC success has been demonstrated in Kenya, where an increase in abstinence among young people, as well as a decline in multiple sexual partnerships resulted in a decrease in the country's overall adult prevalence rate from 10% in 1999 to 7% in 2003 (CCIH et al., 2006). Like Uganda, the B component seems to have had the most impact, but the country's overall prevalence rate was also affected by the

implementation of AIDS education in schools and the mobilization of NGOs, faith-based groups and all alike (CCIH et al.).

Figure 3.15 illustrates the changes in ABC indicators, which led to a reduction in the country's (Kenya) HIV prevalence rate between 1998 and 2003.

FIGURE 3.15

ABC Behaviors in Kenya (1998-2003)



Source: Christian Connections for International Health, 2006

Coupling the ABC Approach with Other Prevention Mechanisms

In sub-Saharan Africa, the applicability of the ABC approach can be a rather complex undertaking, where many "factors can take away a person's ability to practice abstinence, faithfulness and consistent condom use" (CCIH et al., 2006, p. 39). Inherently, on a continent plagued with poverty, illiteracy, instability, displacement and gender disparities, there are intricate issues which have to be examined on a case to case basis, as each country or region is bound to have its own set of unique problems (CCIH et al.).

Perhaps, one of the primary issues at hand has been the social issues faced by African women, where they are often stripped of the choice of practicing abstinence, fidelity or consistent condom use (CCIH et al., 2006). For example, some African women find themselves in situations, where they are coerced into sex, while other might be forced into difficult marriages, as a result of poverty (CCIH et al.). Finally, condom use might prove to be difficult for most women, as it is often impossible for them to convince their husbands or sexual partners to use one (CCIH et al.). As such, implementing the ABC approach means that there has to be a consideration of local circumstances, since the interaction of so many factors are bound to have an impact on an individual's behavior (CCIH et al.).

Additionally, some of the debate surrounding the ABC approach questions the simplistic nature of the HIV prevention strategy, thereby implying that most countries will probably have to go beyond ABC, in order to ensure that all is being done to prevent the spread of AIDS (Blas et al., 2006). Hence, there has been increasing interest in the development of prevention technologies, which when coupled with social and behavioral approaches such as the ABC model could have the potential to provide a higher level of protection from the AIDS virus (Coates et al., 2006). In fact, some of the prevention mechanisms being investigated include:

1. "Treatment and suppression of herpes simplex virus 2 (HSV-2), which has been associated with higher HIV prevalence rates" (Coates et al., p. 10).
2. "HIV viral load suppression via antiretroviral medications, which can treat HIV infection and also has the potential to lower transmission rates" (Coates et al., p. 10).
3. "Diaphragms, which might prevent HIV from reaching the cervix and endocervix, where most female infections occur" (Coates et al., p. 10).

4. "Male circumcision, which might have a substantial protective benefit against HIV-1 acquisition" (Coates et al., p. 10).

Perhaps, one of the most discussed prevention mechanisms has been the issue of male circumcision, where researchers first examined the impact of the procedure on HIV incidence during the mid 1980's (De Vincenzi et al., 1994). Accordingly, the importance of male circumcision (in terms of its protective benefit against HIV infection) can be attributed to a biological mechanism, where the foreskin is thought to harbor a considerably "higher concentration of Langerhans cell, which act as target cells for HIV-1" (Coates et al., 2006, p. 17). It has also been suggested that the foreskin is more susceptible to microscopic tears during sexual intercourse, thereby increasing a person's risk of being infected with a sexually transmitted disease (Coates et al.). Furthermore, following circumcision, "the surface epithelium of the glands develops a protective layer composed of keratin (a structural protein), which is thought to act like a natural condom", thereby having the potential to decrease the chance of HIV infection in men (De Vincenzi et al., p. 153).

As such, it has been argued that male circumcision could be of particular significance in a resource-poor area like sub-Saharan Africa, where it has been "hypothesized that variations in HIV prevention rates in different regions are associated with differences in circumcision practices"; and according to observational studies, as well as randomized controlled trials performed on the continent, researchers have concluded to some extent that the procedure "provides significant protective benefits against HIV infection" (Coates et al., 2006, pp. 9-12).

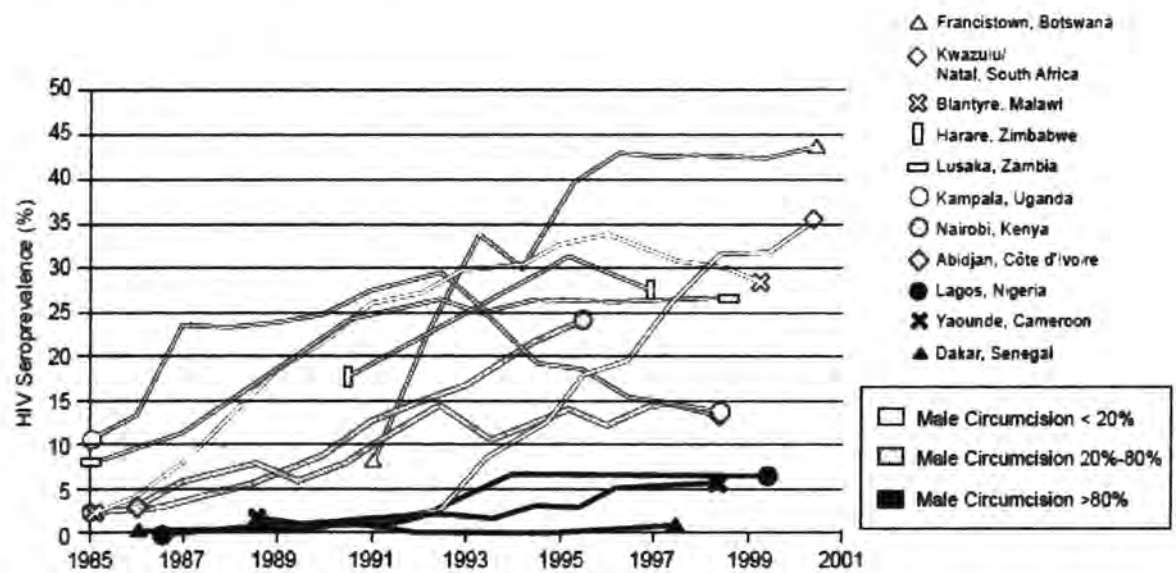
In fact, as the result of a randomized controlled trial carried out in South Africa by Bertran et al. (South African "Orange Farm" trial), researchers revealed that the risk of HIV

infection was decreased by 60% in men who were circumcised and the procedure "provided a degree of protection comparable to what a vaccine with high efficacy would achieve" (Coates et al., 2006, p. 14). Finally, in terms of whether or not the procedure offers a substantial level of protective benefit for women, researchers concluded that circumcision affords a significant level of indirect protection for both women and children (Coates et al.).

Figure 3.16 provides HIV prevalence rates for pregnant women during 1985 through 2000 and approximated male circumcisions rates for several major African cities.

FIGURE 3.16

HIV Seroprevalence for Pregnant Women and Estimated Male Circumcision Rates in Several Major Cities in sub-Saharan Africa for 1985 – 2000



Source: U.S. Agency for International Development (2002)

In conclusion, the ABC approach has been viewed as a social vaccine of sort, where low income nations, especially those of sub-Saharan Africa can be given the opportunity to alter the course of their epidemics via behavioral change (Blas et al., 2006). However,

successful implementation of the program requires the consideration of all the factors associated with the transmission of HIV including individual issues, societal issues, infrastructural issues and structural issues. For Uganda effective leadership was instrumental to the program's success, where President Museveni chose to tackle many of the problems associated with his country's epidemic at the onset of his presidential term. Inherently, Museveni change the course of Uganda's AIDS epidemic as the result of many factors including governmental commitment, communication of a consistent message and policy development (USAID, 2006). Therefore, the east African nation's implementation of the ABC approach was not as simplistic as A, B and C; thus, policy makers and all other parties involved in battling HIV/AIDS have the special responsibility of identifying and understanding the complexities of HIV/AIDS management and policy in order to successfully limit the spread of the disease in sub-Saharan Africa or anywhere else (USAID).

CHAPTER 4

LITERATURE REVIEW: THE DINKA

The Dinka tribe constitutes southern Sudan's largest ethnic group, which comprises more than 4 million people and inhabit approximately one-tenth of the country's nearly one million square miles (Gurtong Peace Project, 2006). As a Nilotic people, the Dinka can be further distinguished into 25 sub-sections, which occupy three major areas including Bahr el Ghazal, the Upper Nile region and the Southern Kordufan region (Gurtong Peace Project). However, a majority of their population reside in Bahr el Ghazal, which is an area in southwestern Sudan that borders the Central African Republic (Gurtong Peace Project).

Table 4.1 provides a break-down of the ethnic group by identifying its major sub-divisions, as well as their geographic locations in southern Sudan.

TABLE 4.1

Dinka Sub-sections and Geographic Locations

Section (s)	Geographic Location
Rek (Malual)	Aweil
Luach	Pangak Thoi
Renk (Abailang, Nyiel, Agier)	Bailet Ngok (Lual Yak)
Ruweng (Alor, Bil, Kuei)	Bentiu
Bor, Twic, Nyarweng, Hol	Bor
Agar	Rumbek
Rek Luach	Tonj
Rek (Apuk, Awan, Kwach)	Gogrial
Aliab, Ciec	Yirol
Ngok	Abyei

Source: Gurtong Peace Trust

While the Dinka lack a formal political system, each sub-section has a separate governmental structure with established rights to a well-defined territory (Deng, 1972).

Hence, every local system is often composed of a paramount chief (who represents the group in the regional government of southern Sudan), as well as subordinate chiefs and elders (Deng). Additionally, since in Dinka culture leadership is often viewed as a divine appointment, most political figures are often considered spiritual leaders, who are acknowledged as links between the living members of a community and their dead ancestors (Deng). As such, a chief's duties can range anywhere from settling local disputes to summoning the help of spirits during a drought or an epidemic (Deng).

In terms of religious practices, the Dinka have often been described as one of the most religious ethnic groups in southern Sudan, where they traditionally believe in one God, who is referred to as "Nhialic" (Deng, 1972, p. 127). Furthermore, respect for their ancestors and clan spirits plays an important role in their daily lives, as these entities are expected to provide a sense of protection and guidance for both the community and the individual (Deng). Of course, the tribe has also been exposed to western culture and many practice Christianity, which was introduced by the British during the early nineteenth century (Deng). Islam is not very popular among the Dinka or in southern Sudan for that matter, since it remains one of the catalysts for the most recent civil war, due to the Sudanese government's decision to Islamize the entire country (Deng).

Traditionally a pastoral people, the Dinka lifestyle centers on the ownership of cattle and rightfully so, since cattle is utilized in many different areas of their daily lives (Deng, 1972). Contrary to popular belief, the southern Sudanese tribe does not lead a particularly semi-nomadic life, as their cattle are often tended primarily by young men, who set up "temporary camps in search of better grazing areas" (Deng, p. 107) Therefore, for the most

part, Dinka villages are permanent communities that are always occupied by everyone else who is not involved with the herding of livestock (Deng).

Thus, the ownership of cattle serves as savings accounts of sort, as they are not only used to serve the basic needs of the Dinka, but are often used as an exchange currency (Deng, 1972). As such, the following is a partial list of the ways in which cattle is utilized in Dinka society:

1. As a source of nutritional value (Deng).
2. As bride wealth, where a family can receive as many as three hundred cows in exchange for their daughter's hand in marriage (Deng).
3. As blood wealth, where cows are often paid as compensation in the event of a killing or for a range of other wrongdoings (Deng).
4. As gifts of friendship or return of a favor (Deng).
5. As the basis for domestic items and other tools including disinfectant, bedding skin, snuffboxes, trumpets and spoons (Deng).
6. As fuel and fertilizer, which is extracted from the dried dung of cattle (Deng).
7. As sacrifices to gods, spirits and ancestors, where they are expected to protect against evil forces, disease and death (Deng).

Finally, the cow is especially symbolic in Dinka culture, where the animal is almost idolized by the ethnic group and plays an important role in the naming of children, initiation ceremonies and a plethora of other significant Dinka traditions and practices (Deng).

Besides herding cattle, the Dinka also engage in agricultural activities, where crops produced include corn, peanuts, sesame, beans, okra and tobacco (Deng, 1972). Crops are harvested twice a year, where both men and women are expected to assist with the process

(Deng). Fishing takes place throughout the year, with the most active seasons occurring during February, March and November (Deng). Furthermore, since the Dinka usually refrain from killing their cattle, they typically hunt during the "very dry season", when animals are more likely to wander near their villages or during the "very wet season", when again there is a tendency for animals to stray away from their natural habitat in search of drier areas (Deng, p. 108-109).

Inherently, the Dinka pattern of economic activities relies heavily on four seasons which are referred to as Ker, Ruel, Rut and Mai. Ker (which runs from May until early June) is considered the beginning of the wet season; and the end of Ruel (which runs from July until October) is the period during which the rains are the heaviest (Deng, 1972). During Ker, crops are planted in cleared fields and cattle are returned to the villages, while during Ruel, the bulk of agricultural activities take place including harvesting (Deng). Rut, which is considered the coldest time of the year, is the season during which the main cattle camps are established away from the villages, while Mai is considered the "hottest time of the year", as well as the "season of disease" (Deng, p. 110). As such, the Dinka are often wary of Mai and are usually eager for the return of the wet season (Deng).

Structure of Dinka Society and Culture

The Dinka, who are noted for their height are often regarded as a proud and ethnocentric group of people, which is perhaps evident in their reference to themselves as "monyjang", which literally translates into "the lord of all people" or "the man of men" (Deng, 1972, p. 2). This term is often used to put forth the idea that "the Dinka see themselves as the standard of what is normal for the dignity of man and as a result asserts their superiority to others" (Deng). Accordingly, the Dinka often feel that their land (which

is referred to as Dinkaland) is the best place on earth and as such, there could be no legitimate reason to leave their homeland and way of life (Deng). However, despite their ethnocentrism, they have often been described as a hospitable and inviting people, who often "demonstrate a high moral standard and code of behavior" (Deng, p. 6).

Essentially, Dinka culture and society is governed by a set of several principles, which includes harmony, unity, integrity, honor, respect, loyalty and pride (Deng, 1972). The Dinka regard these principles as a heritage, which was handed down by their ancestors and have "proven their worth over generations and as such has become sanctified" (Deng, p. 13). In fact, these principles are often viewed as an interconnected system of rules, that cannot be separated and every Dinka is expected to maintain his/her culture by incorporating all of these values into their daily lives (Deng).

However, perhaps the most important principle in Dinka culture is the perpetuation of culture and heritage through the continuation of lineage (Deng, 1972). As such, marriage and procreation are two extremely important concepts in Dinka society, as it allows for the formation of treasured kinship structures and vital support networks (Deng). In fact, it is fair to state that marriage is an aspiration of every Dinka and the birth of children is viewed as a means of gaining a sense of immortality (Deng). Inherently, the Dinka view marriage as an obligatory step into becoming an adult, as it allows an individual to gain independence from his/her family, as well as create a new family line of his/her own (Deng). As such, the prominence of marriage in Dinka society can be understood based on the following four major concepts:

1. It allows for the establishment of a "socially sanctioned man-woman relationship" (Deng, p. 93).

2. For Dinka men, it provides the domestic services of a woman, which sometimes translates into the "the relief of an aging mother" (Deng).
3. It results in a redistribution of wealth between two families (Deng).
4. It allows for one of the Dinka's foremost goal in life, which is procreation (Deng).

In terms of marital age, the Dinka make an effort to prevent very early marriages, since both girls and boys are usually expected to experience some sense of independence and sexual maturity before tackling the issues associated with married life (Deng, 1972). However, most Dinka eventually marry, since it is consider shameful to stay unmarried for too long (Deng). As such, the majority of men marry during their late teens to early twenties, while some might wait until their thirties or even forties, due to their inability to pay the dowry required of a traditional Dinka wedding (Deng). Girls on the other hand are not allowed to get married before puberty and are usually married within a similar age range as boys (Deng). However, it should be noted that a girl is usually not allowed to remain unmarried for too long, since her family will often "give her hand in marriage to a man for a nominal payment" (Deng, p. 26). Also, under certain circumstances, young Dinka men feeling a sense of obligation to their lineage or family might rush into marriage (Deng). For example, the only son of deceased man will marry early with the notion that he has to preserve his father's lineage, while the oldest son of a chief may get marry earlier than is expected of him, in order to relieve himself of some of his social obligations (Deng).

The entire process of courtship and marriage itself is a step-by-step process, in which both the family of the bride and groom are often actively involved (Deng, 1972). Inherently, Dinka tradition dictates that the man interested in getting married, concerns himself with pursuing a girl of his interest, while the elders work on gaining the consent of her parents or

guardian(s) (Deng). Therefore, the first step of the process means the establishment of a friendship between the two individuals and there is virtually "no limit to how a man and a woman can meet, since traditionally a woman can be approached by a man at any time and in any place" (Deng, p. 88).

During courtship, the man is responsible for visiting the woman, since traditionally Dinka girls/women are not allowed to visit the home of their suitors (Deng, 1972). Therefore, the man is usually allowed to visit his "girlfriend as frequently as both people please", as long as they meet on the "fringes of the girl's village"; and often times, both individuals are accompanied by a friend or a relative in order to ensure that "the norms of proper conduct are not violated – especially by the man" (Deng, p. 28-29). Dinka girls are often considered to be rather modest in terms of their social behavior and are usually wary of any suggestions of promiscuity, since it is accepted in men, but not tolerated among women; and even though couples sometimes engage in sexual intercourse before marriage, it is an idea usually frowned upon by relatives (Deng). As a result, pregnancy before marriage is usually considered unacceptable, since children born out of wedlock maintain a low social status, as "there is little or no interest in their birth" (Deng, p. 29). In fact, if a woman gets pregnant prior to marriage, she might be disowned by her parents and her family might even go as far "invoking their ancestors and deities, in order to induce a still birth" (Deng, p. 29).

As such, in order to avoid pregnancy, unmarried Dinka couples often use several controls including "external friction without penetration, the rhythm method and withdrawal before ejaculation" (Deng, 1972, p. 29). Also, while it is believed that in some areas, girls use herbs in order to induce miscarriage, abortions are rarely performed (Deng). On the other hand, if and when the life of a pregnant woman is placed at risk as a result of her unborn

child, miscarriage is induced through "physical therapy backed by religious blessings" (Deng, p. 29).

When a man makes the decision to ask for a woman's hand in marriage and if the woman agrees, he must then consult with his family in order to seek the approval of the most important members, which are usually male elders (Deng, 1972). If agreed by the family that their son should get married, the next step is then an investigation into whether or not "there are any relationships that might bar the proposed union" (Deng, p. 29). Marriages are often barred under certain circumstances including the discovery that young couples are blood relatives or if a feud exists between the families (Deng).

Once the proposal of marriage is agreed upon by the man's family, a meeting is then arranged with the woman's family, where it is then up to them to decide whether or not their daughter will be allowed to get married (Deng, 1972). Therefore, upon the agreement of the woman's family, arrangements are made to pay a dowry, where the family of the future groom decides on the actual amount of cattle, which will be presented to his future wife's family (Deng). Once the cattle have been presented to the bride's family, the couple is considered married, as the Dinka often view the exchange of cattle as a stage of marriage (Deng). In other words, the payment of betrothal cattle means that an agreement has been made between both families, that a wedding will occur in the near future and as such "it gives rights and duties that are not equal to those of marriage, but anticipate a concluded marriage" (Deng, p. 96). Furthermore, although such an arrangement does not allow for the couple's engagement in sexual intercourse, there is the notion that if pregnancy does occur before the actual wedding ceremony, it causes no transgression (Deng).

After a wedding ceremony has been performed, the woman is given away to her new family, where she is accompanied by female relatives to the home or village of her husband and his family (Deng, 1972). For the first week or so, she is considered a guest in her marital household and as such she is treated with great reverence, as she is adorn with jewelry and is the focus of attention from her husband and the rest of his family (Deng). Afterwards, she is expected to integrate herself into the family and assume her status as a housewife, where she is expected to take up most of the domestic chores (Deng).

Perhaps the most important step after marriage is the birth of children, since it is regarded as a "process of integration", which provides both people "with a common purpose" and a "guarantee" that their marriage has been fulfilled (Deng, 1972, p. 98). A couple usually aspires to have as many children as possible, contributing to the Dinka's high birthrate; however, their population is also limited by their equally high infant mortality rate (Deng).

The extension of lineage is so important in Dinka society that, when a woman is unsuccessful in having a child or if her husband dies before she becomes pregnant, a male relative of her husband is usually expected to step in and carry on his dead relative's bloodline (Deng, 1972). The practice, which is referred to as widow inheritance can also be viewed as a form of social security, where if a man dies, his wife is provided with some sort of assurance that a male member of her late husband's family will step in and care for her (Deng). In other words, the practice is based on the idea that, when a woman marries, she leaves her family and is integrated into her husband's family, which is now considered her new family (Deng). Therefore, in a time of need, she is expected to initially seek help from her husband's family, before reaching out to her maternal and paternal relatives (Deng).

After giving birth to a child, a woman refrains from engaging in sexual intercourse with her husband and during this time he may "look to another wife (if there is one) for sexual relations" (Deng, 1972, p. 27). Polygamy is accepted in Dinka society, where a man can have as many wives as he can afford and as a result, a polygamous marriage often means the existence of one senior wife and at least one or two junior wives (Deng). A senior wife is usually expected to stop having children once one of her own children gets married, since then her status changes, as she now expected to primarily play the role of a grandmother (Deng).

In Dinka culture, family planning is not "consciously practiced" by married couples, since it is viewed as a way of "slamming the door of life on a human being" (Deng, 1972, p. 29). However, the Dinka have in fact devised several methods of controlling their families which includes the following:

1. Establishing minimum age requirements for marriage (Deng).
2. Refrainment from sexual intercourse by a nursing mother (Deng).
3. Refrainment from sexual intercourse by the mother of a child who has gotten married or by the mother of a young man, who has been initiated into manhood (Deng).
4. Sexual alternatives allowed by the practice of polygamy (Deng).

Every Dinka wife is expected to "show devotion to her husband, love him, respect him, pay particular attention to his health and nourishment, respect his sons and keep an open house to all of his kinsmen and friends" (Deng, 1972, p. 99). A Dinka husband, on the other hand is expected to care for his wife, "build her a hut, help cultivate her field, provide her with cows and above all else give her children (Deng, p. 98).

While both men and women are expected to complete their duties as husband and wives, women are more likely to suffer a more severe punishment, if they fail to meet the standards set for them by society (Deng, 1972). For example, if a woman is unhappy with her marriage, she is expected to "endure the situation or persuade her husband to adhere to her wishes" (Deng, p. 99). Taking the matter to the village elders is considered inappropriate and when a woman stands up to her husband she is often labeled a "bull woman", while her husband is label a "cow" (Deng). On the other hand, if a Dinka man is unhappy with his marriage, he often reserves the right to punish his wife, which can range anywhere from simply reprimanding her to beatings (Deng). But, perhaps the greatest punishment a husband can give his wife is the refusal to eat her food or much worse share her bed, because this translates into him denying her children, which is a punishment surpassed only by divorce (Deng).

Women in Dinka society are aware of the inequalities that exist between the sexes, yet for the most part they have come to accept such "logic of discrimination" as a part of their culture (Deng, 1972). However, it should be noted that some women have devised ways of voicing their complaints or "rebelling against the system" (Deng, p. 99). For instance, defiant women will often fall into a state of trance and voice their complaints, while some women might resort to cheating on their husbands (Deng). Both methods of rebellion are not favored, but adultery is often loath since it is regarded as a legal offense, believed to be punishable by "the threat of illness or death" (Deng). Furthermore, it should mentioned that even though both men and women commit adultery, a woman is often considered "more depraved", because "while the law usually holds both parties responsible, Dinka morals usually places a larger blame on the woman" (Deng, p.102).

As such, marriages rarely end in divorce, not only because it is an idea abhorred in Dinka culture, but the process itself is often rather tedious and complex (Deng, 1972). Perhaps, one of the key factors contributing to the complexity of divorce is the return of cattle exchanged as bride wealth at the beginning of the marriage (Deng). As such, if the man is considered at fault "he is not allowed to claim the bride wealth he received at the beginning of his marriage, until his ex-wife remarries and her new husband can afford to return the cattle" (Deng, p. 102). On the other hand, if the woman is considered at fault, her family becomes responsible for returning all of the cattle received from the husband's family (Deng). As a result, divorce is usually avoided in Dinka society, where spouses rather receive compensation for their partner's wrongdoings, than petition to leave the marriage (Deng).

When divorce does occur, the custody of children is awarded to the father "as he is considered the primary beneficiary of procreation" (Deng, 1972, p. 203). However, this often creates tension between fathers and their children, since in Dinka society, children are usually emotionally attached to their mother (Deng). This can be partially attributed to the practice of polygamy, where "children often align themselves with their mothers", since their fathers are usually spread thin among many wives (Deng, p. 103).

The Role of Men vs. Women in Dinka Society

Beginning at a fairly young age, the Dinka began to differentiate between the roles of the sexes, where for the most part girls are expected to remain at home with their mothers engaging in household activities, while boys tend to cattle with their fathers (Deng, 1972). In other words, boys are expected to learn from the men, while girls are expected to learn from the women (Deng). The processes involved in the socialization of both Dinka boys and girls is often viewed as an educational one, where children are prepared to assume their roles in

society, as well as continue their family trade or profession (Deng). As such, education in the traditional western sense was not particularly accepted by the Dinka, when it was first introduced by the British in the 1940's, as it was viewed as a distraction, which kept the youth from performing their normal duties (Deng). In fact, many in the Dinka community believed that enrolling boys in schools meant that there would be no one left to look after the cattle, while sending "a girl to school was viewed as immoral and unsuited for marriage" (Deng, p. 153). However, with time most people began to appreciate the value of education, as they slowly learned to maintain a balance between their traditions and the influences of other cultures (Deng). Therefore, in Dinka society today, education in the western sense is encouraged and valued, but there are still some traditionalists, who believe that the best education is the one received according to Dinka traditions (Deng).

The idea of segregation of the sexes is often deemed necessary, since the Dinka believe that boys are to be "immunized against the tensions and conflicts associated with women", because they are expected to become the "core of family unity, harmony and continuity" (Deng, 1972, p.51). On the other hand, a family's primary aspiration for a daughter is that she learns how to be a good wife and mother (Deng). Therefore, girls are often viewed as subordinates to boys, as they are expected to leave their family sometime during their lives and become part of another kin group (Deng). In fact, a girl's main contribution to her family is that she attracts bride wealth, which can then be used by her "brothers and other male relatives for their own marriages" (Deng, p. 56).

A Dinka's girl's subordination also translates into hard labor within the household, where she is not only expected to assist her mother with domestic chores, but she is also expected to help tend to both domestic animals and cattle (Deng). Furthermore, as girls

grow older their tasks "increase in degree and intensity"; however, when they reach "marriageable age (somewhere around the age of 16), their load lessens in terms of household chores, as they are then expected to look their best in order to attract men"(Deng, p. 59).

For Dinka boys, life is a series of transitional steps which are viewed as preparations for leadership roles both within their future households, as well as the community (Deng, 1972). Therefore, the first step in the process begins at age 3 or 4, when a young boy is sent to live with his maternal grandparent (Deng). While a boy might resent the separation from his parents, the home of his grandparents is often viewed as a valuable nurturing environment, free of conflict and tension (Deng). For polygamous households, a boy's stay at his grandparents' is often regarded as an escape from "competition for the father's attention from other wives and children in the paternal home" (Deng, p. 47) However, since Dinka society tends to be a particularly paternalistic one, boys are expected to remain loyal and devoted to their fathers (Deng).

After, staying with his grandparents for a couple of years, the boy then returns to his father's home (usually around age 5 or 6) and at this time, his education in the customs of Dinka society officially begins, as he is now expected to learn how to become a man (Deng, 1972). It is usually during this time when boys are circumcised; and while some sections of the Dinka abhorred the practice (where they view it as custom of the Arabs), several groups including the Ngok, Rek, Tuic and Malual perform the procedure on every male child (Deng). The operation, which is rather painful, due to the absence of anesthesia, is an informal one, which is performed by an "expert" in the privacy of the parent's home (Deng, p. 66).

Another ritual, which also takes place during childhood, is the extraction of six of the lower front teeth (Deng, 1972). It is a tradition shared by all Dinka of both sexes and it usually takes place around age ten, where the teeth are removed with a fishing spear (Deng). The Dinka have no specific reason as to while they practice this custom, "other than the idea that it is esthetically pleasing and helps shape the mouth to be handsome" (Deng, p. 66).

By far the most important event, which takes place in a boy's life, is his initiation between the ages of 16 and 18, when his status as man within his community is determined (Deng, 1972). Inherently, initiation is viewed as a "commencement into adulthood, where boys are expected to began to display a high degree of courage, aggressiveness", dignity and responsibility (Deng, p. 68). In fact, initiation is the utmost aspiration of Dinka youth, since it commands respect from the entire community, even the elders (Deng). However, while initiation often entails being one step "closer to equality with the elders, the extent of the promotion is limited and it rises gradually with age" (Deng, p. 70).

During initiation, yet another ritual is performed, where each male is marked with seven to ten deep lacerations, which are made across their foreheads (Deng, 1972). The initiates, who usually pass out after the ceremony, are then dispatched to a secluded village, where they are required to live as a group for several months (Deng). Afterwards, they are handed spears and taken into the wilderness, where they are "instructed in the arts and ethics of war by their fathers" (Deng, p. 73). When all of the rituals of initiation are completed, the young males are expected to return to their village and continue their journey into adulthood, where they are expected find their future wives and extend their lineage (Deng).

Transitions in Dinka Culture

Over the past decades, the culture and traditions of the Dinka have been influenced by many different factors including the introduction of western culture, Sudan's civil war and the exodus of hundreds of thousands of refugees into other countries (Deng, 1972). Their traditional religious beliefs have been mostly replaced by Christianity, as a result of the advent of missionaries, who have challenged their spiritual traditions (Deng). Their prized cattle, which still remain a crucial part of their identity, have been killed or stolen in raids (Deng). Many Dinka men now opt for jobs in cities, rather than tend to cattle and women are beginning to seek leadership roles in society, as they are being granted opportunities outside of the household (Deng).

Inherently, Dinka society is changing, as most people belonging to the ethnic group are being exposed to a plethora of opportunities both within and outside the borders of Sudan (Bond, 1998). Therefore, as the Dinka transition into life during peaceful times, their traditions are being challenged not only by outsiders, but by their own countrymen; and while the ethnic group has always been extremely proud of their traditions and culture, they are now being forced to rethink their approach to many aspects of life including marriage and gender roles (Bond). As such, as the Dinka enter a new era in southern Sudan, it will be fascinating to see how they maintain their culture and traditions in the midst of so much change (Bond).

CHAPTER 5

METHODOLOGY

In order to gain a more comprehensive understanding of Dinka culture and society, a survey was conducted among individuals belonging to the ethnic group, where respondents provided their opinions on the three main components of the ABC approach. In other words, all individuals who participated in the survey answered questions regarding social and behavioral attitudes toward abstinence, monogamy/fidelity and condom use. Additionally, participants also answered general demographic questions, as well as questions pertaining to their general knowledge of HIV/AIDS.

Population and Sample

For the purposes of this research, more than 400 surveys (both paper and e-mail format) were mailed and handed out to randomly selected Dinka individuals living in the United States, as well as countries outside of the U.S. including Sudan, Uganda, Canada, England, Switzerland, and Sweden. Paper surveys were handed out or mailed to potential participants via community centers, social gatherings, as well as on a door to door basis, while e-mail surveys were passed out via message boards and websites frequented by members of the ethnic group. For those participants residing outside of the United States, the questionnaire was sent only by e-mail.

The two major websites used to inform the Dinka community about the survey were the Mading-Aweil website and the Gurtong Peace Trust website, where the former is geared towards young southern Sudanese, while the latter attracts a more mature crowd. Since both of these websites are frequented by Sudanese living all over the world, they served as very

useful resources, where information about the survey was posted on message boards and in discussion forums. In particular, the format of Gurtong.net allowed for information to be posted in healthcare discussion forums, as well political forums, where the latter tended to have the largest amount of traffic. Finally, several Yahoo! Groups created by and geared towards southern Sudanese people were also used to inform the Dinka community about the study.

When information about the survey was posted on message boards and/or discussion forums, it included a brief synopsis regarding the purpose of the research, as well as an e-mail address to which potential participants could reply in order to obtain more details. If interested, potential participants were allowed the options of completing the survey via e-mail or on paper, which meant that they provided an e-mail address of their choice or their home address. Finally, paper surveys which were mailed included a return envelop, as well as postage stamps.

In regards to the surveys handed out via community centers and/or groups, each center was contacted either by e-mail or phone, where information about the purpose of the survey was provided to each community's contact person. Once the contact person made known that their community members were interested in completing the survey, a bulk of surveys was mailed to the respective center. As such, the contact person then took on the responsibility of passing out surveys within his/her community, where each participant was provided with a copy of the survey and a stamped envelop labeled with the return address. The Dinka communities in the United States which received the largest amount of paper surveys were located in Chicago (Illinois), Kansas City (Missouri), Dallas (Texas) and Phoenix (Arizona). All four cities were targeted, since they are all home to fairly large

populations of Dinkas, where Kansas City boasts one of the largest concentration of Dinka individuals living in the United States.

Of the more than 400 surveys handed out, 113 were returned, where the majority was received via e-mail. Only 101 surveys were actually used, since some of the remaining 12 were incomplete (meaning some participants chose not to answer a significant amount of questions), and some questionnaires were not completed at all. As such, of the 101 participants, 92 were male and the remaining 9 were female, where 98 individuals stated their place of birth as southern Sudan (and the remaining 3 left their responses blank). In terms of age, the participants were given the option of choosing from one of seven age categories provided, where 43 percent of respondents fell in 26 to 30-year-old age group. The second most selected category was the 21 to 25-year-old age group with 29 percent, while the 31 to 35-year-old age group fell in third place with 11 percent. The least selected age category was the 15 to 20-year-old age group, which included only 1 person. Furthermore, it should be noted that the idea of asking participants to select an age category rather than state their exact age was based on the idea that oftentimes, Dinkas who were born in southern Sudan are unaware of their exact date of birth, since the lack of a healthcare infrastructure in the South for the past couple of decades has hindered the documentation of many births.

A majority of respondents (89 people to be exact) were residents of the United States, where their average length of stay fell somewhere between 4 to 6 years. Additionally, most had immigrated to America from nations bordering Sudan, with the most popular country (of previous residence before the United States) being Kenya. Of the 12 participants living outside of the United States, 6 were residents of Canada, 2 were living in England, 1 in Switzerland, 1 in Sweden, 1 in Uganda and 1 in the town of Juba in southern Sudan.

Almost all of the participants stated their religion as Christianity, with only 1 person stating that they were a poly-atheist, while another practiced a traditional African religion. Furthermore, of those who stated that they practiced Christianity, 17 people specified that they were Roman Catholic and 2 people noted that they were Episcopalian.

Sixty percent of respondents had completed some form of a bachelor's degree, while four percent reported that they had not finished high school and another fifteen percent reported a high school diploma as their highest level of education. Eight participants had completed or were in the process of finishing graduate school, while four people held professional degrees. In terms of level of income, thirty-one respondents reported their income level as less than 10,000 dollars, while thirty people reported their income level as more than 30,000 dollars, but less than 40,000 dollars. As such, the average level of income seemed to fall somewhere around 20,000 dollars. Moreover, in regards to the women who participated in the survey, on average the highest level of education was a high school diploma, while the average level of income was rather difficult of estimate, since only two of the nine female respondents reported their income level (both of which were below 20,000 dollars).

Finally, in terms of relationship status, a significant number of participants were single (71 to be exact), where 18 were married, 2 were widowed, 9 were separated and 1 person was living with someone. Therefore, none of the participants reported being divorced. In regards to the female respondents, 6 of the 9 women were either widowed or separated from their husbands due to Sudan's recent war, while 2 women were married and 1 woman was single.

Data Collection Procedures

The survey was conducted via three major methods which included e-mail, postal mail and face-to-face interactions. The utilization of southern Sudanese websites proved to be most effective, where a large number of people could be reached at one time via postings on message boards. Inherently, when potential respondents were contacted via e-mail, they were provided the options of completing the survey electronically or by postal mail. For those who opted for postal mail, each individual was provided with a stamped envelope, which included the address to which the survey was to be returned. Additionally, participants who completed the survey via e-mail or postal mail were given on average a period of three to four weeks to complete the questionnaire. In terms of face to face interactions, surveys were primarily handed out at Sudanese community centers or in neighborhoods that were known to have a considerable Dinka population. For those respondents, who could not read or speak English, the survey was conducted as an interview, where participants answered each question verbally. Finally, in order to ensure anonymity, each respondent was asked to refrain from stating their name on the questionnaire.

Data Analysis

In an effort to address the research questions associated with this study, the survey questions were separated into four major areas which included questions regarding HIV/AIDS knowledge, abstinence, monogamy/fidelity and condom use.

The primary purpose of the first set of questions (which dealt with HIV/AIDS knowledge) was to obtain a basic understanding of each respondent's familiarity with HIV/AIDS, as well as a sense of their views on AIDS policy. As such, some of the questions asked included:

1. Do you think that AIDS is a fatal disease?
2. What can people do to people do to protect themselves from getting infected with HIV?
3. Who do you think is best suited to be involved in the implementation of HIV prevention programs and HIV policy?

The second set of questions dealt with abstinence, where participants provided their opinions on issues such as sex before marriage or age at first sexual intercourse. Since the ABC approach promotes abstinence primarily among young people and most respondents were over the age of 21, the importance of these questions was based on what participants thought was appropriate for Dinka youth. Therefore, some of the questions asked included:

1. At what age did you first have sexual intercourse?
2. Should a Dinka girl/boy abstain from sex before marriage?
3. If not married, what age do you think is an appropriate age for a Dinka girl/boy to start engaging in sexual intercourse?

The third set of questions were associated with the issue of faithfulness/monogamy within a relationship; therefore participants were given the opportunity to provide their opinions in regards to the importance of fidelity within Dinka culture, as well as their view of cultural practices such as widow inheritance and polygamous marriages. Inherently, certain aspects of Dinka culture (widow inheritance and polygamy) were being questioned, in terms of whether not most Dinka felt that these practices were in fact detrimental and should be eliminated, when viewed in the context of HIV/AIDS. As such, some of the questions asked included:

1. Is there anything wrong with an unmarried Dinka man/woman having more than one sexual partner?
2. Is being faithful the responsibility of both the man and woman in a relationship?
3. Do you think that the practice of widow inheritance should be eliminated from Dinka society?

Finally, the last set of questions addressed the issue of condom use among respondents, where according to the ABC approach, condom use programs should be targeted primarily toward high risk groups; but, the fact still remains that the AIDS epidemic in sub-Saharan Africa is a generalized one and the same trend seems to be occurring in southern Sudan. Therefore, the objective of these questions was to determine whether participants associated condoms primarily with high risk groups or rather as a crucial mechanism for preventing the spread of the AIDS virus, no matter the circumstance.

Furthermore, since circumcision has become a significant part of the debate on HIV/AIDS prevention and policy, it was important to ask those males who were not circumcised whether or not they would consider getting circumcised, if it was proven that circumcision would help prevent the transmission of the AIDS virus. Some of the questions asked in this section included:

1. Is there a need to use a condom if you are involved in a monogamous relationship?
2. Does a woman have the right to demand the use of a condom by her partner?
3. Is it acceptable for a Dinka girl (less than 18) purchase a condom?
4. Are you circumcised? If not would you consider getting circumcised, if it was proven to help in the prevention of HIV transmission?

Essentially, the survey was used to gain a further understanding of cultural attitudes which exist within Dinka society, in order to determine which components of the ABC approach would be the most effective for the tribal group. In other words, the survey allowed for an examination of the social norms which exists within Dinka society and the impact that they will have on the implementation of the ABC program.

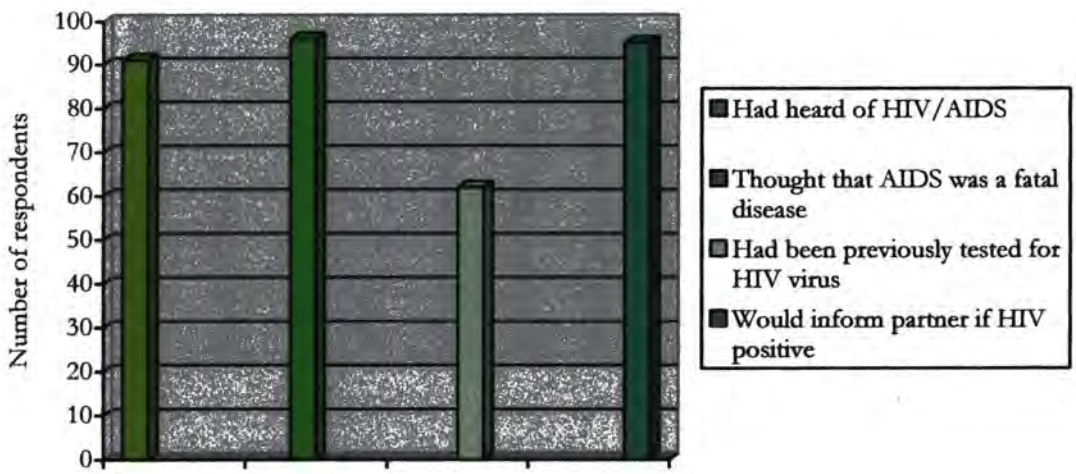
CHAPTER 6

RESULTS

The primary purpose of the first set of survey questions was to obtain a basic idea of each participant's knowledge of HIV/AIDS and Figure 6.1 provides the results of the first few questions, which asked respondents if they felt that AIDS was a fatal disease, if they had been previously tested for HIV since immigrating to the United States and if they would inform their partner of their HIV status (if positive).

FIGURE 6.1

HIV/AIDS Knowledge

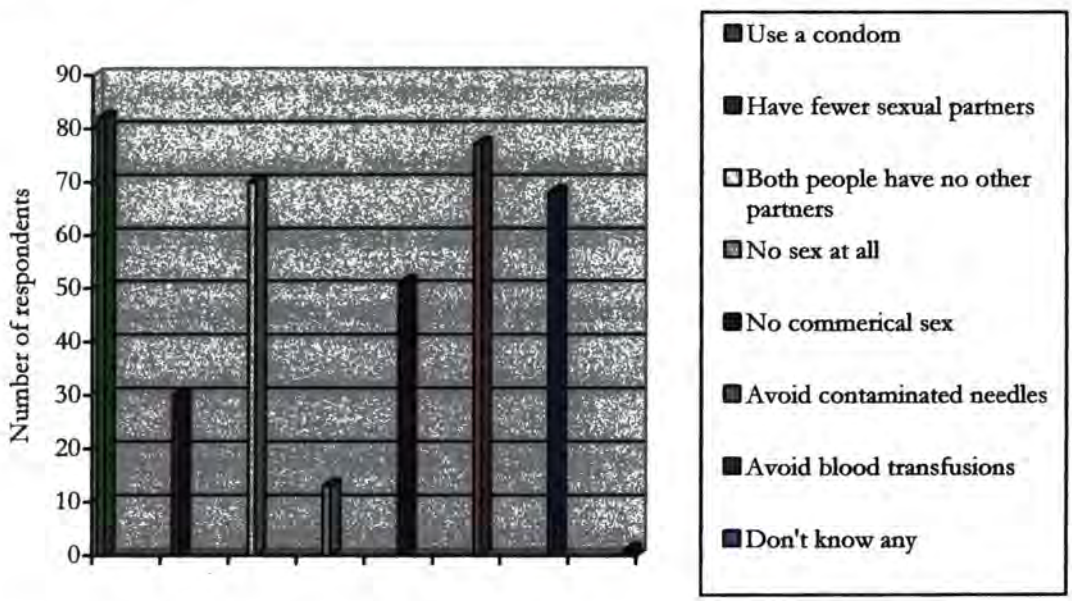


As expected, almost all of the survey's respondents felt that AIDS was a fatal disease, where 62 percent of participants had been previously tested for HIV, since immigrating to the United States. Lastly, a significant number of respondents (94 percent) reported that they would indeed inform their partner, if they were aware that they were HIV positive.

When asked if there was anything a person could do to avoid contracting the AIDS virus, 97 percent of participants responded affirmatively, where they were then given the option of choosing from a list of prevention mechanisms and Figure 6.2 provides an illustration of those responses. Inherently, survey participants were prompted to choose from a list of prevention methods, as well as state any other strategies which they felt was important, but was not listed as one of the choices.

FIGURE 6.2

Avoidance of HIV Infection



Respondents were encouraged to choose more than one of the options provided, where the most frequently selected prevention method was the utilization of a condom followed by an avoidance of contaminated needles and both people having no other sexual partners. Interestingly, while most respondents felt that both people should have no other sexual partners, only 30 people selected the option of having fewer sexual partners. One person reported that they didn't know of any methods of preventing an HIV infection.

Respondents were also asked to provide their opinions on who they felt was best suited to be involved in the implementation of HIV prevention programs and policy, where the options provided included national government, local government, NGOs, community leaders, tribal elders and faith-based leaders. Inherently, the purpose of the question was to determine whether or not participants understood the importance of a multi-sectorial approach in terms of HIV/AIDS management and policy.

As such, a majority of respondents (91 to be exact) felt that HIV prevention was the responsibility of all entities listed, while only 10 people felt otherwise and chose at least one of the options provided. For those 10 individuals, the most frequently selected options for who should be best suited to be involved in the implementation of HIV prevention programs were national government, tribal elders/leaders and the general public.

The second set of questions were associated with the abstinence component of the ABC approach, where participants were asked to provide their opinions on issues such as sex before marriage, as well as appropriate ages for Dinka youth to start engaging in sexual activity, if it takes place outside of marriage. The primary purpose of these questions was to determine whether or not the promotion of delayed sexual debut among Dinka youth will in fact prove to be a realistic HIV/AIDS prevention strategy. Therefore, when asked to state the age at which they first engaged in sexual intercourse, 65 participants provided an exact age, while 25 individuals stated that they didn't know or could not remember. Furthermore, 9 people stated that they had never engaged in sexual intercourse and 2 people chose not to answer the question. As such, for the entire sample, the age at first intercourse ranged from as early as 6 years old to as late as 25 years old, where the average age was 15.8 years. Sixteen respondents stated that they had engaged in sexual intercourse before the age of 15, which

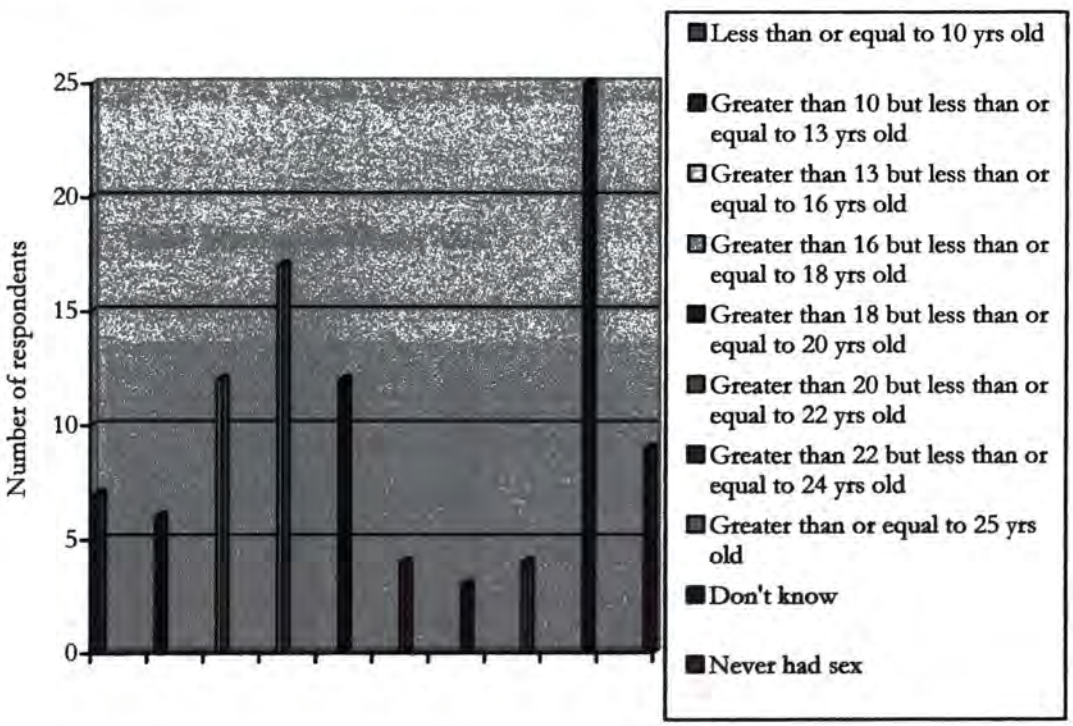
included 2 people at age 6, 4 at age 10, 5 at age 13 and 3 at age 14. On other hand, 21 people reported that they had not engaged in sexual intercourse prior to age 18, which included 4 people at age 19, 8 at age 20 and 4 at age 25.

Naturally, an indication of sexual intercourse at the very early ages of 6 and 10 was particularly alarming, where all 6 people who had engaged in sexual intercourse before the age of 10 were males. Additionally, only 2 people mentioned sexual abuse as the fundamental reason for the incidence, where 1 person indicated that he had been abused by an older female family member.

Figure 6.3 graphs the distribution of age at first sexual intercourse for the entire sample of survey respondents.

FIGURE 6.3

Age at First Sexual Intercourse



In regards to the 9 women who participated in the survey, 7 were unable to state or could not remember the exact age at which they first had sexual intercourse. Of the remaining two women, one woman approximated her age at first intercourse at 21 years, while the other estimated that she was 18 years old.

It should also be noted that, of the 101 people who participated in the survey, 42 were married, where the average age at marriage was 24.7 for the entire sample and 18.8 for female participants. As such, of those who were married at the time of the survey, 35 people had engaged in sexual intercourse prior to marriage.

When asked to provide their opinion on whether or not a Dinka man or woman should delay engaging in sexual intercourse until marriage, more people agreed that a woman should be expected to practice abstinence prior to becoming a wife than for a man to wait until he was married; and the responses are shown in Figures 6.4 and 6.5. In fact, 65 people agreed to some extent (either strongly or slightly) that a Dinka woman should delay sexual debut until marriage, while 44 people agreed when the focus was shifted to Dinka men.

FIGURE 6.4

Abstinence from Sex Before Marriage for Dinka Men

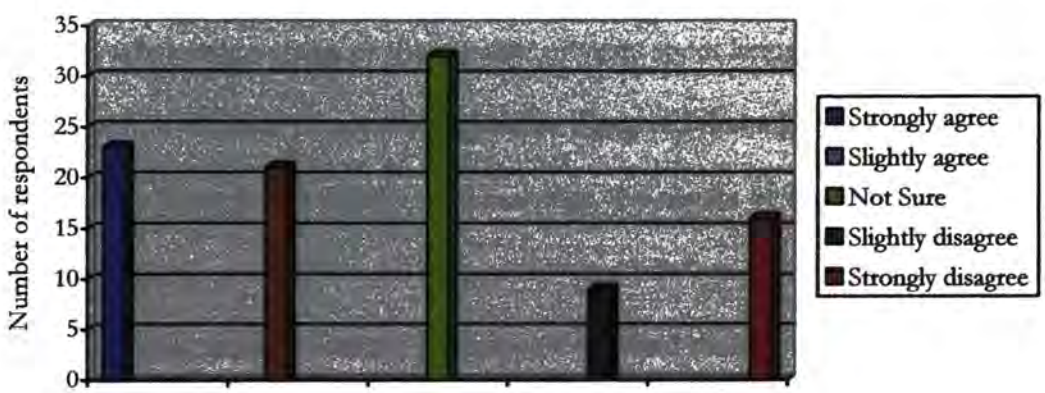


FIGURE 6.5

Abstinence from Sex Before Marriage for Dinka Women

When examining the responses of the Dinka women who participated in the survey, 7 of the 9 women were not sure if men should practice abstinence before marriage, while 1 strongly agreed and another strongly disagreed. On the other hand, in terms of whether or not a Dinka woman should practice abstinence before marriage, 4 of the women surveyed were not sure, while the remaining 5 strongly agreed.

Additionally, in an effort to determine whether certain variables such as a participant's age had any bearing on his/her opinion regarding abstinence, a Pearson chi-square significance test was performed. As such, when examining whether a person's age, level of education, relationship status or the number of years spent living in the United States had any effect on whether or not they agreed or disagreed that a Dinka man or woman should refrain from sexual activity until marriage, the results of the test revealed no significant associations.

The next question posed to survey participants required them to state the age at which they felt was appropriate for a man or a woman to start engaging in sexual

intercourse, if the respondent felt that there was no need to wait until marriage. As such the average age suggested for a Dinka man was 19.2 years, while the average age suggested for a Dinka woman was 18.1 years; and those results are provided in Figures 6.6 and 6.7.

FIGURE 6.6

Appropriate Age Suggested for a Dinka Man to Start Engaging in Intercourse

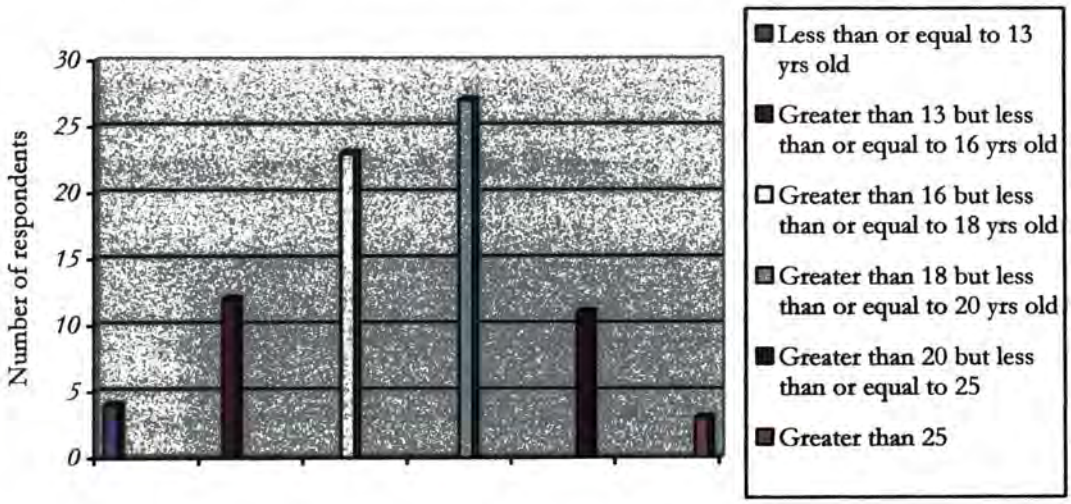
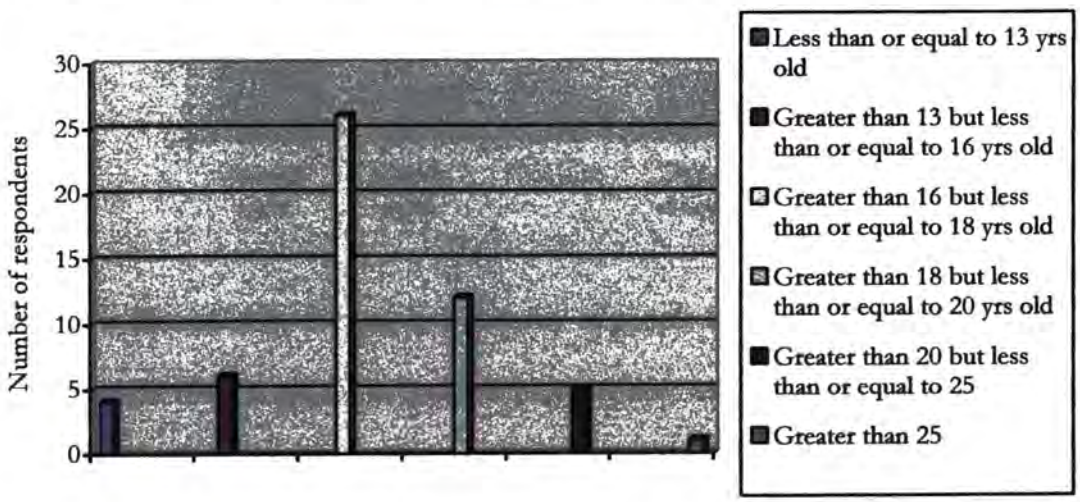


FIGURE 6.7

Appropriate Age Suggested for a Dinka Woman to Start Engaging in Intercourse

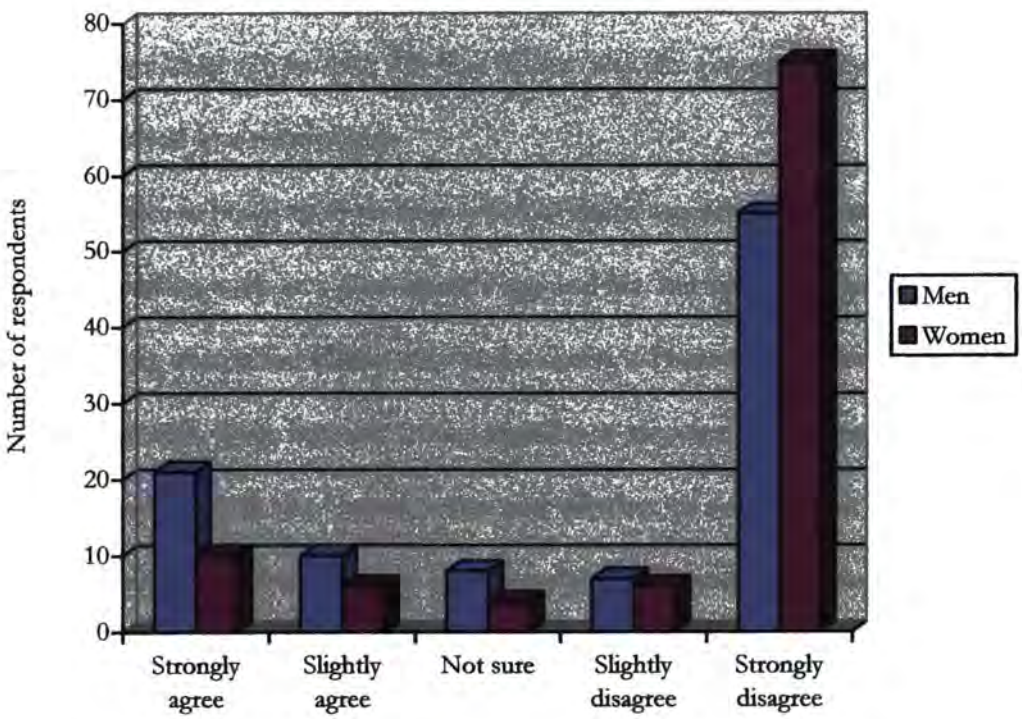


In order to partially determine respondents' attitudes towards monogamy and fidelity, they were asked whether or not they felt that it was acceptable for an unmarried Dinka man or woman to have more than one sexual partner.

Figure 6.8 illustrates a comparison of answers provided in regards to whether respondents thought that it was acceptable for an unmarried Dinka man to have more than one sexual partner, as opposed to an unmarried Dinka woman.

FIGURE 6.8

Multiple Partnerships Among Dinka Men and Women



As illustrated by the graph, a majority of people felt that unmarried men and women should refrain from engaging in multiple partnerships, where most people were more adamant about a woman practicing monogamy as opposed to a man. In fact, 75 people

strongly agreed that unmarried women should refrain from having more than one sexual partner, while 55 people expressed the same opinion in regards to unmarried men. On the other hand, 21 people felt strongly that there was nothing wrong with an unmarried Dinka man having more than one sexual partner, while only 10 people felt the same way about unmarried Dinka women. In terms of the women who participated in the survey, 4 strongly agreed that an unmarried man should have only one partner, while 3 stated that they were not sure and 2 slightly agreed. Furthermore, when asked whether or not there was nothing wrong with a Dinka woman having more than one sexual partner, they all disagreed. Finally, when questioned on the issue of accountability regarding faithfulness in a marriage, a majority of respondents (96 people) felt that fidelity was the responsibility of both the man and woman involved in a relationship.

Once again, in order to determine whether there was an association between certain demographic variables such as a participant's age and his/her opinion regarding the issue of faithfulness among unmarried Dinka men and women, a Pearson chi-square test analysis was performed As a result, there seemed to be a significant association between the number of years a person had spent in the United States and whether or not they felt that an unmarried Dinka man should practice monogamy. Additionally, the Pearson test also revealed an association between a respondent's relationship status versus whether they felt monogamy was necessary for an unmarried Dinka man, as well as an association between a respondent's age and whether they felt that monogamy was necessary for a Dinka woman. The *p*-values calculated were the following:

1. 0.040 (time spent in the U.S. versus whether a Dinka man should practice monogamy).

2. 0.010 (age versus whether an unmarried Dinka woman should practice monogamy).
3. 0.012 (relationship status versus whether an unmarried Dinka man should practice monogamy).

Of the 4 participants who had spent at least one year in the United States, all 4 people felt strongly that an unmarried Dinka man should practice monogamy, while 25 of the 56 participants who had spent at least 10 years in the U.S. felt otherwise. In terms of relationship status, 43 of the 71 participants who were single strongly agreed that an unmarried man should have only one partner, while 8 of the 18 participants who were married felt the same. Finally, for all ages the majority of participants felt strongly that a Dinka woman should practice monogamy.

Table 6.9, 6.10 and 6.11 provide a more detailed distribution of those three variables which were determined to have an effect on participants' opinions regarding monogamy.

TABLE 6.9

Cross Tabulation of Age and Participants' Opinion Regarding Monogamy Among Dinka Women

		Acceptable for Unmarried Dinka Woman to Have >1 Sexual Partner					
		Strongly Agree	Slightly Agree	Not Sure	Slightly Disagree	Strongly Disagree	Total
Age	15-20 yrs	0	0	0	1	0	1
	21-25 yrs	1	3	0	2	23	29
	26-30 yrs	3	2	3	1	34	43
	31-35 yrs	0	0	0	0	11	11
	36-40 yrs	1	0	0	0	9	10
	41-45 yrs	0	0	1	0	2	3
	46+ yrs	0	0	1	0	3	4
Total		5	5	5	4	82	101

TABLE 6.10

Cross Tabulation of Time Spent in the U.S. and Participants' Opinion Regarding Monogamy Among Unmarried Dinka Men

		Acceptable for Unmarried Dinka Man to Have >1 Sexual Partner					
		Strongly Agree	Slightly Agree	Not Sure	Slightly Disagree	Strongly Disagree	Total
Time Spent in the U.S	0-2 yrs	0	0	0	0	4	4
	3-4 yrs	2	1	2	1	1	7
	10-15 yrs	11	8	5	7	25	56
	15-20 yrs	1	2	3	1	13	20
	20+ yrs	2	0	0	0	0	2
Total		16	11	10	9	43	89

* While there were 101 participants who participated in the survey, 12 were residents of countries outside of the U.S.

TABLE 6.11

Cross Tabulation of Relationship Status and Participants' Opinion Regarding Monogamy Among Unmarried Dinka Men

		Acceptable for Unmarried Dinka Man to Have >1 Sexual Partner					
		Strongly Agree	Slightly Agree	Not Sure	Slightly Disagree	Strongly Disagree	Total
Relationship Status	Single	13	7	4	4	43	71
	Living with Someone	0	0	0	1	0	1
	Married	2	3	3	2	8	18
	Widowed	0	0	0	1	1	2
	Separated	1	1	4	1	2	9
Total		16	11	11	9	54	101

* None of the survey's participants reported being divorced.

Since polygamy remains a common practice in Dinka society, most respondents agreed (either slightly or strongly), when asked whether it was acceptable for a married Dinka man to have more than one wife if he chose. Furthermore, in regards to the issue of

widow inheritance, where a widow marries a male family member of her deceased husband (typically one of his brothers), 85 people believed that the practice (which is often viewed as a sort of social security) still exists in southern Sudan. Four people thought otherwise and 12 people stated that they were not sure. As such, when respondents were asked whether or not the practice should be completely eliminated from Dinka culture, 59 people answered no, while 22 people agreed and 16 people were not sure. The remaining 4 participants chose not to answer. In regards to the female respondents, 2 women felt that the practice should be eliminated, while another 2 felt otherwise. Additionally, 4 women were unsure about whether the practice should remain a part of Dinka society and 1 woman did not respond to the question.

When a Pearson chi-square test analysis was performed in order to determine whether certain demographical variables had any bearing on whether participants felt that the practice should be completely eliminated in southern Sudan, calculated *p*-values indicated a relationship between a participant's relationship status and his/her opinion regarding the elimination of the practice, where the p-value calculated was .024.

In regards to condom use, 54 respondents strongly agreed that they were confident that they knew how to use a condom correctly, while another 21 slightly agreed. Twenty people indicated that they were unsure, while 6 people revealed that they were not confident that they knew how to utilize a condom correctly. Furthermore, when asked about whether there was no need to use a condom when involved in a monogamous relationship, 62 respondents agreed to some extent (either strongly or slightly), while 13 people stated that they were unsure and 26 people disagreed. In regards to the women who participated in the survey, 6 women strongly disagreed that a condom was necessary in a

monogamous relationship, 2 women stated that they were not sure, 1 woman strongly agreed and 1 woman did not respond to the question.

Figure 6.12 provides a depiction of the results of the questions concerning condom use in a monogamous relationship and marriage.

FIGURE 6.12

Condom Use in a Monogamous Relationship Versus Marriage

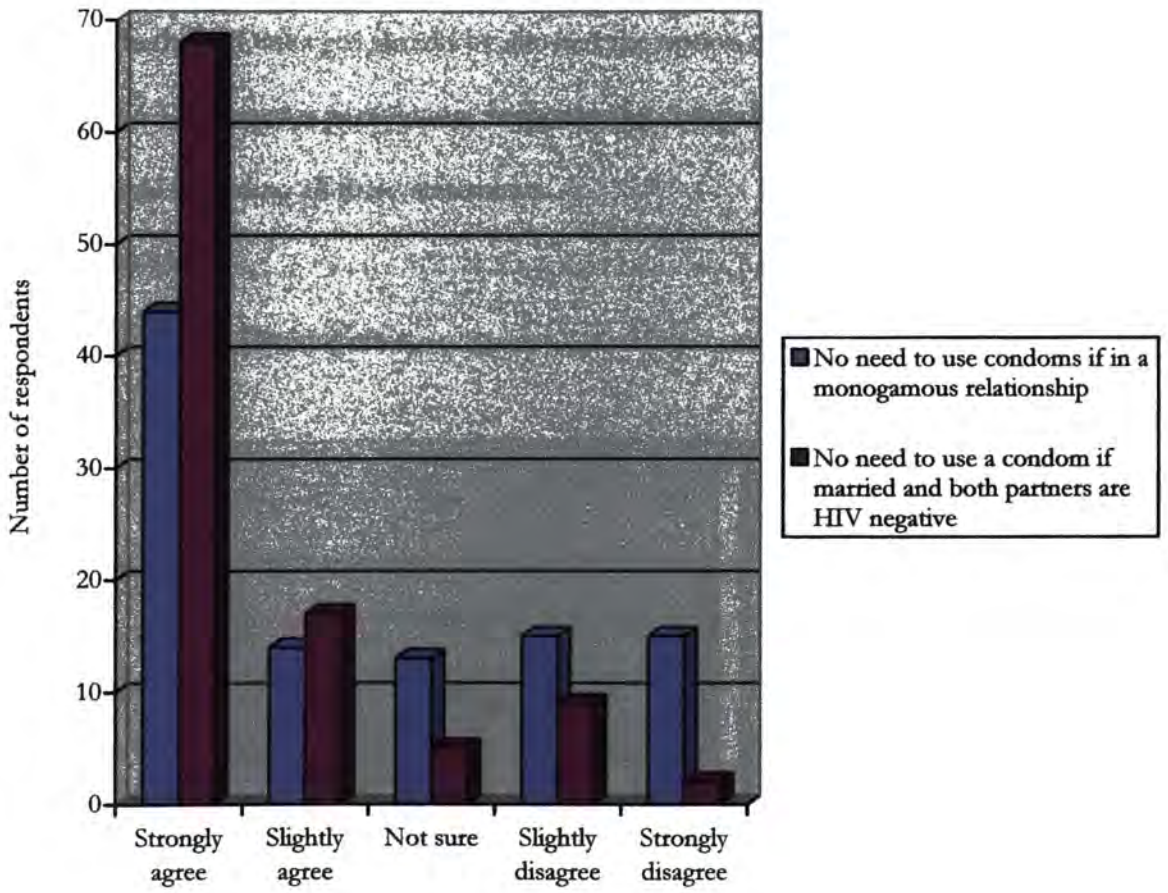


*Figure 6.12 depicts and compares the answers provided by the entire sample of survey participants in terms of whether they felt that there was no need to use a condom in a monogamous relationship or marriage.

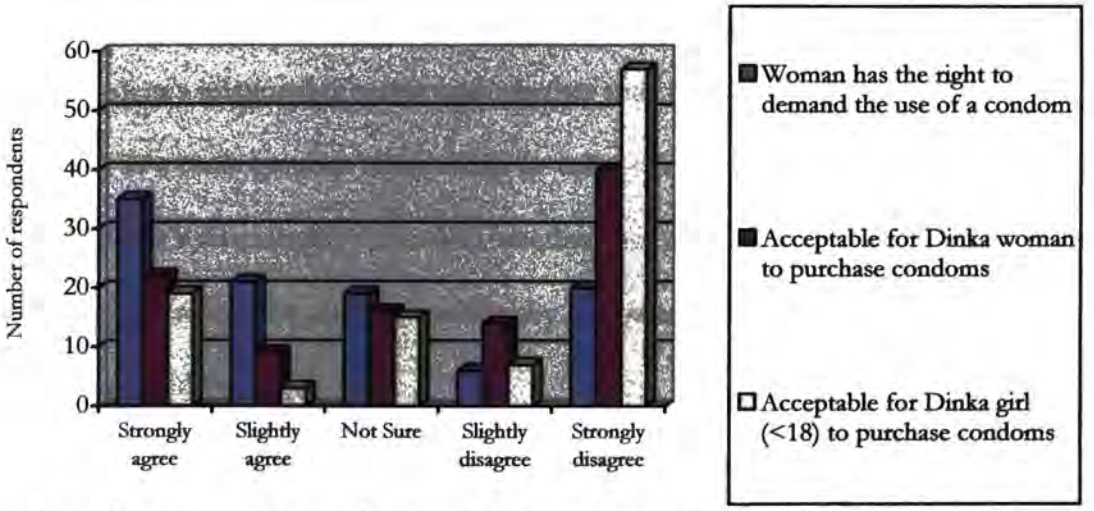
In order to determine whether respondents felt that women should be proactive in regards to the use of condoms, they were asked to provide their opinions on three issues including:

1. Whether a woman should be allowed the option of demanding a condom from her partner.
2. Whether a Dinka woman should be allowed the option of purchasing a condom, regardless of her marital status.
3. Whether a Dinka girl should be allowed the option of purchasing a condom.

Figure 6.13 illustrates participants' responses by comparing the opinions provided by the entire sample regarding all three statements.

FIGURE 6.13

Condom Use Among Dinka Women



As such, while most people agreed to some extent that a woman has the right to demand the use of a condom, most people disagreed when it was suggested that a Dinka woman or a girl should be allowed to purchase a condom. In fact most people cited the importance of societal expectations, where it might be acceptable for a Dinka woman or girl

to purchase condoms while living in the West; but in southern Sudan, such an action would be completely out of the question. Finally, with regards to the women who participated in the survey, they all agreed that a woman should have the right to demand the use of a condom, however they all also disagreed that it was acceptable for either a Dinka woman or girl to purchase one.

Thus, as a result of the Pearson chi-square test, it was determined that a significant association existed between the following variables:

1. A respondent's level of education and their confidence in knowing how to use a condom correctly (p-value calculated = .013).
2. A respondent's level of education and whether they felt that it was acceptable for a Dinka woman to purchase condoms (p-value calculated = .032).
3. A respondent's level of education and whether they felt that it was acceptable for a Dinka girl (less than 18-years-old) to purchase condoms (p-value calculated = .041).
4. A respondent's relationship status and whether they felt that a condom was necessary in a monogamous relationship (p-value calculated = .015).
5. A respondent's relationship status and whether they agreed that a Dinka woman had the right to demand the use of a condom by her partner if married or unmarried (p-value calculated = .033).
6. A respondent's relationship status and whether they felt that it was acceptable for a Dinka woman to purchase condoms (p-value calculated = .044)
7. A respondent's relationship status and whether they felt it was acceptable for a Dinka girl (less than 18-years-old) to purchase condoms (p-value calculated = .000).

Tables 6.14 through 6.17 provide a more detailed distribution of some of the preceding associations.

TABLE 6.14

Cross Tabulation of Level of Education and Participants' Confidence in their Ability to use a Condom

		Confidence in Ability to Use a Condom					
		Strongly Agree	Slightly Agree	Not Sure	Slightly Disagree	Strongly Disagree	Total
Level of Education	Less than High School	1	0	3	0	0	4
	High School	4	1	8	0	2	15
	Associates	6	2	1	0	0	9
	College	35	17	6	0	3	61
	Graduate	5	1	1	0	1	8
	Professional Degree	3	0	1	0	0	4
Total		54	21	20	0	6	101

TABLE 6.15

Cross Tabulation of Level of Education and Participants' Opinions Regarding a Dinka's Woman's Right to Purchase Condoms

		Dinka's Woman Right to Purchase Condoms					
		Strongly Agree	Slightly Agree	Not Sure	Slightly Disagree	Strongly Disagree	Total
Level of Education	Less than High School	1	0	0	1	2	4
	High School	3	0	1	3	8	15
	Associates	0	0	0	1	8	9
	College	14	8	13	7	19	61
	Graduate	4	1	0	0	3	8
	Professional Degree	0	0	2	2	0	4
Total		22	9	16	14	40	101

TABLE 6.16

Cross Tabulation of Relationship Status and Participants' Opinions Regarding the Necessity of a Condom in a Monogamous Relationship

		Necessity of Condom in a Monogamous Relationship					
		Strongly Agree	Slightly Agree	Not Sure	Slightly Disagree	Strongly Disagree	Total
Relationship Status	Single	33	7	13	11	7	71
	Living with Someone	0	1	0	0	0	1
	Married	3	4	0	4	7	18
	Widowed	2	0	0	0	0	2
	Separated	6	2	0	0	1	9
Total		44	14	13	15	15	101

TABLE 6.17

Cross Tabulation of Relationship Status and Participants' Opinions Regarding a Woman's Right to Demand the Use of a Condom

		Woman's Right to Demand the Use of a Condom					
		Strongly Agree	Slightly Agree	Not Sure	Slightly Disagree	Strongly Disagree	Total
Relationship Status	Single	23	12	17	3	16	71
	Living with Someone	0	0	1	0	0	1
	Married	9	2	1	2	4	18
	Widowed	0	2	0	0	0	2
	Separated	3	5	0	1	0	9
Total		35	21	19	6	20	101

It should be noted that in order to determine whether there was an association between religion and condom use among the Dinka, participants were asked to state whether their religion dissuaded the use of condom during marriage and 37 people agreed to some extent, while 29 people were unsure and 35 people disagreed. Therefore, since almost all

participants stated Christianity as their religion, where only 19 people further specified the church to which they belonged, it was rather difficult to determine whether a participant's religion and/or denomination had any bearing on his/her opinion regarding condom use.

Because the issue of circumcision has become a topic of interest in regards to HIV research, male respondents were asked to state whether they were circumcised and if not, whether they would consider undergoing the procedure if it were proven to help in the prevention of HIV transmission. As such, 27 of the male participants stated that they were not circumcised, where 17 were against the idea of circumcision in spite of the procedure's potential benefits in terms of hindering the spread of the AIDS virus. Additionally, according to p-values calculated via the Pearson's chi-square test, there seemed to be no significant relationship between participants' age, time spent in the U.S, level of education and relationship status versus their consideration of possibly undergoing the procedure.

Finally, it should be noted that a sample size of only 101 individuals, as well as the limited number of female participants was detrimental to the study, which sought to research an HIV prevention strategy for a tribal group consisting of more than 4 million people. Furthermore, perhaps the setting in which the survey was conducted hindered the study, where the opinions of Dinkas residing in the United States and other western countries might have differed significantly from those living in southern Sudan or other countries throughout Africa for that matter. In fact, in this study, only one participant stated southern Sudan as their current place of residence during the time of the survey, which inherently was not sufficient in terms of determining whether a difference of opinions existed between people living in South and those living in western nations. On the other hand, it should be noted that as a result of the Pearson chi-square test analysis, no significant association

seemed to exist between the number of years respondents had spent living in the United States versus their opinions regarding abstinence, condom use or faithfulness. However, while there were a few unfavorable factors which had to be taken into consideration, the study did provide important information regarding the cultural context of Dinka society; and it would be fair to state that as a result of the data collected, some insight was gain in terms determining an appropriate mix of A, B and C interventions for the ethnic group.

CHAPTER 7

DISCUSSION, CONCLUSION AND RECOMMENDATION

The ABC approach proved to be a vital component of Uganda's experience with HIV/AIDS by enabling the east African nation to drastically change the course of its epidemic; but according to researchers, the HIV prevention strategy is hardly a one size fits all deal. As one would expect, strategic interventions in terms of HIV/AIDS are generally complex, since they often require an examination of numerous issues. In fact, according to CCIH et al. (2006), the sexual transmission of HIV can be attributed to four major groupings of factors, which are detailed in Table 7.1.

TABLE 7.1

Factors Contributing to the Sexual Transmission of HIV

Level & Definition	Examples	Changes Required
Individual - Factors which the individual has some control in changing	Biological - Presence of STDs Behavioral - Multiple sex partners	- Prevention/ treatment of STDs - Mutual fidelity - Consistent condom use
Societal - Factors related to societal norms that encourage high-risk sexual behavior	- Gender discrimination - Poor attitudes towards condom use	- Improvement of the status of women - Changes in societal attitude towards condom use
Infrastructural - Factor that directly or indirectly facilitate the spread of HIV	- Poor availability of condoms - Poor communication services	- Changes in health infrastructure - Behavioral change communication
Structural - Factors related to developmental issues	- Underdevelopment/ poverty - Civil unrest	- Economic development programs

Source: Christian Connection for International Health et al., 2006, p. 20.

As illustrated, the transmission of the AIDS virus often involves complicated issues, some of which can be influenced at the individual level, while there are others that warrant the attention of additional parties. Therefore, to effectively execute a prevention strategy such as the ABC approach, all of these factors are to be taken into consideration, in order to determine where changes are required and how best to implement such changes. In other words, while the ABC approach focuses primarily on behavioral change, it is very important that policy makers realize that there are those societal, infrastructural and structural issues, which are just as significant. In fact, according to the U.S. Prevention Office of the Global AIDS Coordinator, the process of executing the ABC model often involves the examination of some of the following issues:

1. Core HIV transmitters.
2. Specific behaviors through which HIV is transmitted.
3. Specific prevention/interventions needs of women, youth and vulnerable populations.
4. Priorities of abstinence programs.
5. Circumstances where condoms are critical.
6. National, political, social and cultural leadership stance on behavioral change and prevention.
7. Social inequities and local practices that foster the spread of HIV.
8. Additional issues impacting a country and its epidemic (i.e. war, famine, refugees and other diseases).

Inherently, HIV/AIDS is more often than not a multi-dimensional problem; hence, a multi-dimensional approach is always critical to the execution of an appropriate response. As

such, while a prevention strategy such as the ABC model is designed to deal with generalized epidemics, proper examination of all contributing factors protects policy makers from implementing "generalized responses" (United States Global AIDS Coordinator, 2006, para. 6).

For the purposes of this research, the key objective was to gain a better understanding of the social and cultural norms present in Dinka society in order to explore how best to implement a successful HIV prevention strategy via the ABC model. Thus, Dinka individuals were allowed the opportunity to offer their opinions, regarding the three major components of the approach and as a result it allowed for a partial understanding of those specific individual behaviors, which have to be influenced in order to promote change. While there was a realization that there are several factors (individual, societal, structural and infrastructural), which have contributed and will continue to contribute to the state of HIV/AIDS in southern Sudan and among the Dinka, the primary purpose of the survey and inherently this thesis was to focus on the those issues which the individual has some control over changing.

On that note, the primary goal of the first section of the survey was to gain an understanding of each participant's basic knowledge of HIV in terms of whether they felt that AIDS was a threatening disease or if they were capable of listing several ways in which HIV can be transmitted from person to person. As expected, a significant percentage of people thought that AIDS was a fatal disease and many people were able to identify at least four ways in which HIV is transmitted; but, there remains the question of whether the same results would have been achieved, if the survey was performed among Dinka individuals living in southern Sudan (especially those who stayed in the region during the civil conflict).

In fact, while important information regarding HIV/AIDS is readily available to Dinkas residing in the United States and other countries around the world, the fact still remains that most people in the South still do not have access to basic information about the disease. Additionally, this lack of information is particularly detrimental to Dinka women because whereas in this survey all nine women were able to choose at least six of the options listed in terms of methods of HIV transmission, most Dinka women in southern Sudan would probably have not been able to do so, since most are severely disadvantaged.

Furthermore, when asked if they would inform their partner if they were HIV positive, a majority of participants responded positively, with a significant number of people confirming that they had been tested for HIV/AIDS, since immigrating to the United States. However, while no information was gathered pertaining to the number of times people were tested, as well as the circumstances surrounding their testing (i.e. whether it was voluntary or involuntary), it would be fair to state that most people viewed HIV testing as only necessary under certain circumstances. In particular, most respondents perceived marriage as a protection mechanism of some sort that rendered HIV testing obsolete. In fact, when participants were asked to list ways in which people can prevent the transmission of HIV, several respondents stated marriage as a prevention mechanism, where many indicated that a person should at least get tested before getting married.

On another note, a few people equated the necessity of HIV testing with the presence of illness, thereby implying that if there were no physical symptoms present, then there was no need to get tested for the virus. Therefore, while only a few people held such a belief in terms of this survey, it might be fair to assume that this could be somewhat of a dominant attitude in southern Sudan, where a majority of the population has limited access

to basic information pertaining to HIV/AIDS. In other words, the lack of information coupled with the unavailability of proper healthcare services might lead most people to only acknowledge the presence of the disease, when it has severely affected the health of its victims.

However, efforts are being made by the southern Sudanese government (which is being largely assisted by NGOs), as well as the general public to provide the South with information about the disease via several strategies including the classroom, churches, newspapers and student/youth organizations. But naturally, there are many obstacles including the absence of functional roads and a limited amount of manpower; as a result, most of the emphasis has been placed on major southern cities such as Juba and Yei, which is particularly disadvantageous to the South, since most of the region's population resides in rural areas.

Regarding the issue of abstinence, such programs might prove to be a successful prevention strategy for Dinka youth, since early marriages are rather common within the ethnic group. As a matter of fact, in terms of this survey, the average age for males at marriage was 24.7 years, while the average age for females was 18.8 years; and according to Deng (1972), a similar average might be expected for Dinka girls residing in southern Sudan. However, while Deng estimates that the average age for males usually falls somewhere around the ages of 17 to 18, marriage might seem probable at a later age for most men, since perhaps they often need time to accumulate the bride wealth expected of a Dinka groom.

Hence, in terms of whether or not abstinence is practiced among Dinka youth, Deng asserts that the practice is not a highly valued one in Dinka culture, because while most families prefer that young couples refrain from engaging in sexual intercourse prior to

marriage, perhaps what is most feared is pregnancy out of wedlock. In fact, the results from this survey revealed that most people had engaged in sexual intercourse at an early age (average age was 15.82 years) and for those who were married (42 people), 35 had engaged in sexual intercourse prior to getting married.

However, when participants were asked whether a Dinka man should abstain from sex before marriage as oppose to a Dinka woman, most participants agreed to some extent, where more people felt more strongly about a woman practicing abstinence. On the other hand, when participants were asked to state the age at which they felt was appropriate for young men and women to start engaging in sexual activity if outside of a marriage, the average ages recommended were unexpectedly high at 18.07 for females and 19.16 for males. Therefore, one can assume that in general, the ethnic group might be receptive to the promotion of abstinence among young men and women, especially when presented within the context of HIV prevention.

However, abstinence programs will have to be promoted much more vigorously among young men, then among women since the structure of Dinka society dictates that females are to be held at a much higher moral standard than males. In other words, while abstinence might prove to be a practical strategy for young Dinkas whether male or female, it should be noted that perhaps the most significant obstacle will be the social attitudes which exist within the cultural group, in terms of what is expected of a woman.

Also, young men and women will also have to be well-informed about the significance of the remaining two components of the ABC model due to several issues. For instance, since polygamy is practiced in Dinka society, it is not unusual for the same idea to be applied to non-marital relationships. Hence, some might consider the idea of multiple

partnerships harmless, whether or not it is practiced within the institution of marriage. Furthermore, since the avoidance of pregnancy seems to be the primary concern of most young couples, it is important that the youth (especially young women) are educated about the protective benefits of condoms, in addition to its utilization as form of birth control.

In regards to the issue of faithfulness, participants were asked whether unmarried men and women should refrain from engaging in multiple partnerships and most people stated that they were strongly against the idea; but once again, more people seemed to believe that women should be held to a higher ethical standard in terms of practicing monogamy and/or fidelity. In fact, even the women who participated in the study felt that every Dinka woman should absolutely practice monogamy; however, when the same question was asked in regards to men, 2 women stated that they were not sure, while another 2 slightly agreed that men should practice monogamy and 2 strongly agreed.

These results can perhaps be attributed to the practice of polygamy within Dinka society, where men are allowed to have as many wives as they can afford. In other words, perhaps in a society where multiple partnerships is accepted within marriage, most Dinka might find it easier to accept the idea of a man having more than one partner even outside of marriage, while the opposite is expected of women. Furthermore, such results also support Deng's (1972) assertion, that while there are certain discrepancies which exist between the sexes in terms of social expectations, most women have come to accept these practices as a part of their tradition and Dinka culture.

In Uganda, the reduction of multiple partnerships proved to have the most impact on the country's HIV seroprevalence during the 1990's, where sexually active men and women of all ages (particularly those who were not married), were more likely to have only

one sexual partner in a 12-month period in 1995 than in 1989. As such, according to researchers, the rate of change of sexual partners plays a key role in the spread of sexually transmitted diseases, where the lack of fidelity in relationships seems to be the driving force behind the epidemics of several African nations.

In southern Sudan, the AIDS epidemic has now become a generalized one, which indicates that an increase in the occurrence of multiple partnerships might be playing a major role in fostering the spread of the disease. Hence, in regard to the Dinka, the practice of fidelity has to be promoted among both sexes, where an emphasis needs to be placed on the overall healthcare benefits associated with faithfulness, so that people can began to focus more on the protection rendered by such behavior.

Perhaps the most significant conclusion drawn from the results of this study pertaining to the use of condom was that a majority of respondents viewed the utilization of a condom as unnecessary within the confines of a marriage and/or a monogamous relationship. In fact, while a considerable number of people (72 participants) agreed to some extent that they were confident in their ability to correctly use a condom, only 23 people thought that it was necessary to use one in a monogamous relationship, while an even lesser number (14 people) felt the same in regards to marriage.

Additionally, in terms of whether or not a woman has the right to demand the use of a condom by her partner, more than half of the survey's respondents agreed that a woman should have that right; however, most disagreed when it was suggested that a Dinka woman or girl should be allowed to purchase a condom. Furthermore, such a view was also shared by the nine women who participated in the survey, where most felt that a woman should be able to demand the use of a condom, but like the rest of the sample, they all felt that the idea

of a woman or a girl purchasing a condom was unacceptable. As such, for most participants, tradition and cultural norms seemed particularly important in this regard, where once again one can assume that there are certain preset notions in Dinka society in terms of the behaviors expected of a woman.

On another note, while most participants revealed that they were capable of correctly using a condom, it might be safe to assume that such results would not have been expected, if the survey was conducted in southern Sudan; because, in spite of the cultural norms which might limit the utilization of condoms among the Dinka, there are also those structural and infrastructural factors that also affects people's ability to use a condom. In other words, issues such as poverty and inadequate healthcare infrastructures continue to have a detrimental effect in the South, where most of the region's population has limited access to condoms, as well as information regarding proper use.

However, the promotion of condom use among the Dinka and in the entire South, has to be viewed as a particularly important HIV prevention strategy, as the dynamics of life in the region have changed to some extent since the signing of the peace agreement. In fact, issues such the increased movement of people throughout the South and the intermingling of soldiers with the civilian population are bound to have a detrimental effect on the region's seroprevalence. Thus, it is essential that the use of condoms is well promoted, where all pertinent information about the prevention mechanism is made available to the public.

On a final note, AIDS research have also suggested that the implementation of the ABC approach can perhaps be made more effective via the incorporation of other components including the promotion of circumcision; and according to Deng (1972), the procedure is not a completely foreign practice to the Dinka; but, while some tribes ensure

the circumcision of every male child, others loathe the practice. In terms of this research a majority of male participants were in fact circumcised, yet for those who weren't, more than half revealed that they would not consider circumcision, even if it was proven to be beneficial in terms of preventing the transmission of HIV. Therefore, once again the difficulty in promoting an idea such as circumcision will be associated with the firmness of certain aspects of Dinka culture, as policy makers will have a difficult time convincing people to question their traditions and belief system.

It should be noted that there are a number of challenges associated with male circumcision including the cost associated with performing the procedure on a large scale (i.e. population level), where low-income regions such as southern Sudan will encounter difficulty in securing financial resources, as well as maintaining the infrastructure capacity required for such an undertaking. Furthermore, circumcision programs might have an impact on the social and behavioral aspects of HIV prevention, where people might become more reckless in terms of their sexual behavior, as they might view circumcision as "complete protection"; whereas studies conducted so far have suggested that the procedure provides "a protective benefit of approximately 60% under ideal circumstances" (Coates et al., 2006, p. 9). As such, there are many research areas which will have to be taken into consideration including some the following:

1. Ensuring that people understand that the level of protection provided by the procedure is "relative, rather than absolute"; therefore, policy-makers and public health experts will have to devise "communication strategies", which will address any misconceptions (Coates et al., p. 5).
2. Fostering "acceptability at the population level", where issues such as "societal

perceptions, implications for gender dynamics, cultural practices and sexual practices" are taken into consideration (Coates et al., p. 5).

3. Examining how circumcision is beneficial to women especially when considering the idea that circumcised men might have the tendency to engage in riskier behaviors.
4. Evaluation and "surveillance of safety" practices, as well as possible complications (Coates et al., p. 24).
5. Examining the myriad of healthcare problems facing many developing nations and determining how to fit the cost of circumcision into their healthcare budgets.

Furthermore, there still exists a difference of opinions among policy makers, researchers and clinicians regarding the validity of the protection associated with the procedure. As a result, while clinical trials and scientific research have enlightened the healthcare community about the "promising protective effects of male circumcision", AIDS experts and organizations such as UNAIDS have "emphasized the need for more research" (Coates et al., 2006, p. 34).

Discussion and Recommendation

As previously mentioned, the implementation of HIV prevention programs such as the ABC approach often involves complex processes that require an examination of several behavioral, epidemiological and structural issues. In fact, "determining an appropriate mix of ABC interventions" generally requires an analysis of existing epidemiological data in order to evaluate the "the proportion of new infections that are associated with specific behaviors", as well as an "understanding of who is engaging in high risk behaviors, where to reach these people and what individual and structural factors could be leveraged to promote change" (United States Global AIDS Coordinator, 2006, para. 1-6). In other words, it is not as simple

as ABC. In Uganda, the ABC approach proved to be a success, where the African nation's triumph over AIDS was the result of several factors including strong leadership, as well as the mobilization of all relevant sectors of society. Inherently, Uganda proved that a disastrous HIV epidemic can in fact be turned around in a low-income African nation, despite its limited financial resources, as well as years of corrupt leadership and civil instability.

Southern Sudan now finds itself in a position similar to that of Uganda more than two decades ago, where the region not only has to deal with several post-war issues, but the possibility of a disastrous AIDS epidemic now threatens the health of millions of people. Undoubtedly, much remains to be achieved in the South in terms of post-war rehabilitation; however, the fact remains that AIDS poses a serious threat to the region and as such renders the attention of policy makers, community leaders and the general public.

Furthermore, since the region has been isolated for such an extended period of time, little is known about the state of HIV/AIDS in southern Sudan, which will undoubtedly prove to be an obstacle in the successful implementation of the ABC approach. However, some information (even if limited) has been made available so far in terms of the region's seroprevalence and the prospect of gathering more data seems more promising than before, as the region is experiencing some relative stability. Furthermore, the Dinka are a group of people who have been previously studied to some extent and as such a considerable amount of information exists in regards to their societal structure and traditions; also, as southern Sudan's largest ethnic group, the tribe is easily accessible, meaning that further research, whether in the form of epidemiological surveys or behavioral studies can be successfully conducted. On that note, as a result of this study, some key assumptions can be made

regarding several key issues which should be taken into consideration, if the ABC model is to be successfully implemented among the Dinka.

In order to make such assumptions, one needs to examine the four major factors which are responsible for the sexual transmission of HIV as provided by Cohen and Trussell (1996). Therefore, while the basic foundation of the ABC approach deals with individual behaviors such as the practice of abstinence, the use of condoms and engagement in multiple sex partnerships, southern Sudan is also faced with many obstacles associated with societal, infrastructural and structural factors.

Therefore, with regards to the behavioral factors directly related to the ABC approach, the following assumptions can be made as a result of the survey which was conducted:

1. Abstinence can potentially be successfully promoted as a prevention strategy for young Dinkas, but a large amount of emphasis will have to be placed on the importance of such a behavior for both young men and women.
2. With regards to fidelity, a strong amount emphasis will have to be placed on encouraging the behavior for Dinka men, since the structure of Dinka society seems to place a higher level of moral constraints on the social behavior of women.
3. In terms of condom use, it might prove difficult for the ethnic group to readily accept the use of condoms on a widespread basis, but the entire population (especially those who are not married) will have to be fully educated about the benefits of condoms in terms of reducing the risk of being infected with HIV/AIDS and other STDs.

Furthermore, since most people were unreceptive to the idea of women or girls purchasing condoms, the utilization of more discrete devices such as diaphragms might prove to be effective in the South. However, in terms of the cost associated with the provision of such devices, the southern Sudanese government will perhaps have to partner with NGOs in order to determine how best to effectively increase the availability of such prevention mechanisms in a region, where most women live on less than a dollar a day. The same idea can also be applied to the availability of condoms, where in order to encourage both men and women to increase their utilization of the device, condoms will have to be made readily available to the general public, where again the southern Sudanese government can look to partnerships with NGOs and the economic status of those residing in the South are taken into consideration.

As demonstrated in Uganda, good leadership is fundamental, where the success of the HIV prevention strategy will weigh heavily on the motivation and persistence of southern Sudan's leaders. In fact, 90 percent of the survey's participants felt that the implementation of HIV prevention programs was the responsibility of several entities including national government, local government, NGOs, faith-based organizations and community leaders. As such, while there are many issues and problems which have to be addressed in the South in terms of post-war reconstruction, it is important that leaders at all levels of society be mobilized, where they are encouraged to take action, in regards to HIV/AIDS prevention. In other words, a considerably high level of commitment has to be demonstrated in the South, as political leaders will have to view HIV/AIDS prevention as significant issue of concern, where efforts should be made to gain a comprehensive understanding of the state of HIV seroprevalence in the region.

For the Dinka, the mobilization of tribal leaders and elders will play an essential role in educating people about HIV prevention, since the ABC model requires such significant behavioral change, some of which will challenge established Dinka traditions. Conversely, other types of leaders will also have to emerge in this process including women and young people. Inherently, some of the cultural norms established in Dinka society will have to reexamined, where the definition of a leader has to become more liberal, so that all relevant parties can play their own role in helping stem the spread of HIV/AIDS in the South.

A considerable amount of emphasis will have to be placed on the empowerment, as well as the education of women. In fact, compared to the men who participated in the survey, female participants were far less educated, where the average level of education reported by most women was a high school diploma; and if the research was conducted in southern Sudan, the educational level would have been far lower, as a majority of women in the region have had almost no access to educational resources during the past two decades. This lack of education and information has a particularly negative effect on women, where even in this survey many were often not as opinionated as their male counterparts. Therefore, it is particularly important that policy makers focus on educating all women (both old and young), where they should be encouraged to take on leadership roles outside of the household and be allowed to play a significant role in the rebuilding of the South.

In addition to placing an emphasis on education for both women and girls, policy makers and community leaders will have to device ways of creating income generating activities for women, since in the South most women are now widowed and forced to fend for themselves in a region where economics opportunities are severely limited. Furthermore, with an increase in behaviors such as engagement in transactional sex, it is extremely

important that women are allowed the opportunity to generate income via other paths including learned skills and trade.

Education and HIV awareness is also important for the entire South, where the southern Sudanese government will have to make an effort to reach all areas in the region whether rural or urban in order to educate people about the disease. As such, Dinka professionals who have stayed in the country, as well as those who left the country during the war can play a significant role in this regard, where many have been exposed to valuable information which will be important in the education of the general population. Furthermore, education will have to take place in many different arenas including the classroom, tribal gatherings and community meetings; and as was demonstrated Uganda, it is particularly important that everyone is allowed the opportunity to assist in such an undertaking including church leaders, tribal elders, women and youth.

Also, while it is highly unlikely that practices such as polygamy and wife inheritance can be completely eliminated from Dinka society, it is important that communities are educated about the harmful effects of such practices in terms of fostering the spread of HIV. In particular, since wife inheritance is often view as a form of social protection, policy makers will have to find some middle ground, as it might be rather difficult to get the ethnic group to come to terms with the risks involved with such a practice.

Perhaps another aspect of Dinka culture that also needs to be examined are the traditional practices of teeth extractions, as well as ritual scarifications, where the same tools are used on several individuals without any forms of sanitization performed between each person. In fact, while no direct associations can be made (or have been made) between these practices and the transmission of HIV, it is important that people are educated about the

harmful effects of such practices, not only in terms of the transmission of the AIDS virus, but also as a general health precaution in terms of avoiding bacterial infections or the contraction of medical conditions such as tetanus.

Finally, the maintenance of peace and the promotion of economic development is critical to preventing a disastrous AIDS epidemic in southern Sudan. For the past couple of decades, the South has barely experienced any significant economic growth, where the region is in need of basic healthcare necessities including medical facilities and personnel. Hence, economic growth is extremely vital to the region in many different aspects, where in terms of healthcare, such development will play an important role in the development of health policies and the implementation of prevention mechanisms such as the ABC approach.

Conclusion

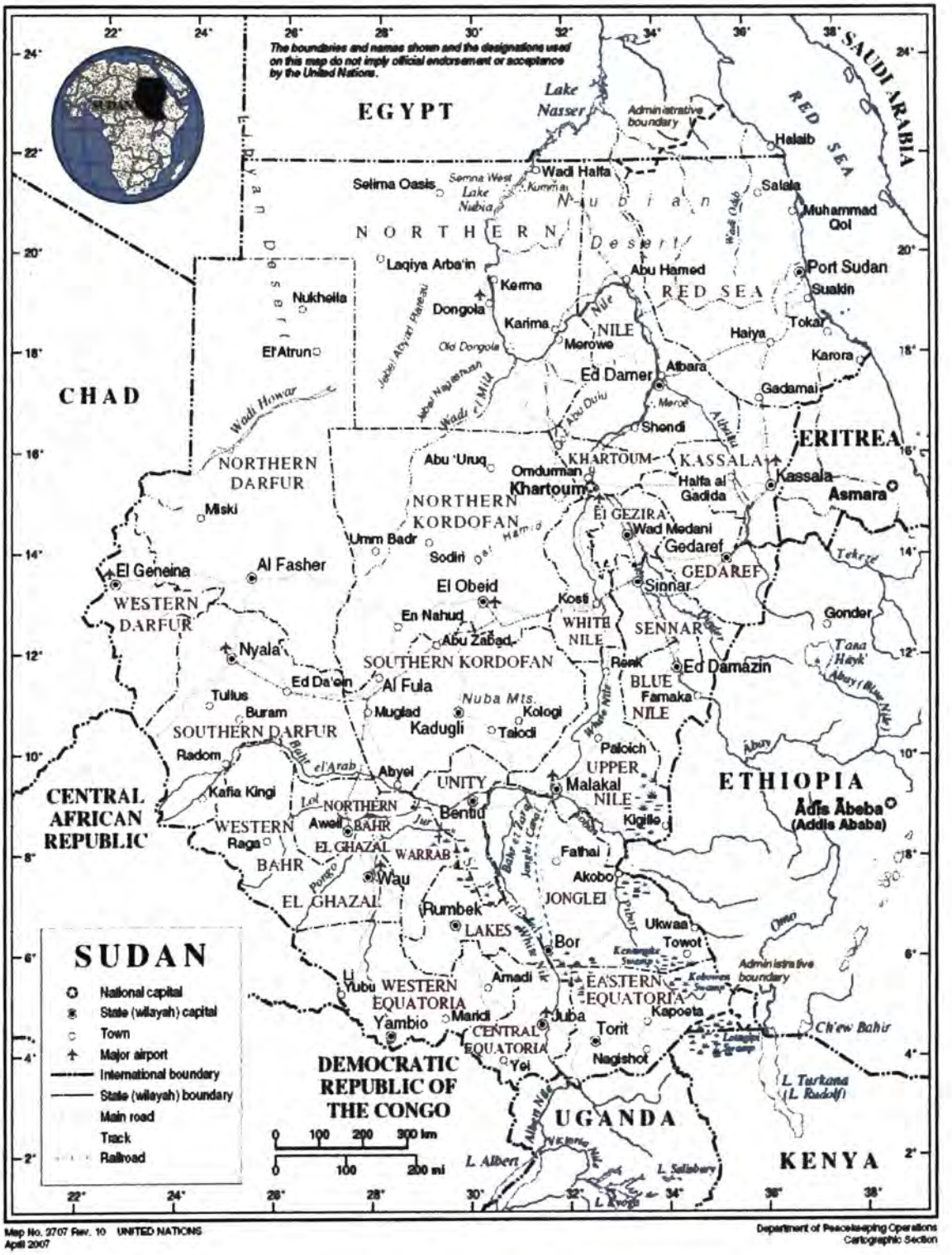
As southern Sudan's largest tribal group, the traditions and culture of the Dinka have been disrupted by the country's civil war and like the rest of the region the ethnic group now has to deal with many post-war challenges including HIV/AIDS. The ABC approach can prove to be an effective prevention strategy for the Dinka, but much of the difficulty will be associated with the idea of getting the southern Sudanese tribe to re-examine several of the social and cultural norms, which have govern their way of life for such a long time. On that note, policy makers can expect to face many obstacles, as the Dinka take great pride in their traditions, but success in terms of implementing the ABC model is not impossible. Inherently, policy makers will have to focus on promoting gradual change via the collaboration of all relevant sectors of society including community and/or local leaders, tribal elders and the general public.

Additionally, perhaps what is most important for the Dinka in regards to the implementation of the ABC approach is that people are provided with comprehensive education pertaining to the prevention of HIV/AIDS. Hence, abstinence for young people can be viewed as a realistic prevention strategy, where the ethnic group should be educated about the protective benefit such a behavior provides in terms of reducing the incidence of HIV infection among young Dinkas, as opposed to the idea that pregnancy out of wedlock is the only benefit associated with abstaining from sexual intercourse before marriage. Fidelity should be promoted for both men and women, where people are provided with important information regarding the detrimental effects that unfaithfulness can have region's HIV seroprevalence and society should be made to understand that fidelity is the responsibility of both people involved in a relationship. Finally, condom use will have to be promoted as equally as the other two components of the ABC approach, where the prevention strategy should be viewed as a relevant option in terms of HIV protection.

Undoubtedly, there are many barriers which lie ahead for the ethnic group and the rest of southern Sudan, but AIDS remains a serious threat, which needs to be addressed immediately by policy makers, community leaders and the general public. As such, in order to successfully stem the spread of HIV/AIDS, southern Sudanese leaders will have to actively address a plethora of social and structural issues, where the South should expect to experience gradual changes in both the short term and long term.

Appendix A

MAP OF SUDAN


The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.
SUDAN
EGYPT
LIBYA
CHAD
CENTRAL AFRICAN REPUBLIC
DEMOCRATIC REPUBLIC OF THE CONGO
UGANDA
KENYA
ETHIOPIA
ERITREA
SAUDI ARABIA
RED SEA
Lake Nasser
Lake Nubia
Nubian Desert
Libyan Desert
NILE
Wadi Halfa
Selima Oasis
Laqiya Arba'in
Nukheila
El'Atrun
Dongola
Kerma
Karima
Abu Hamed
Merowe
Ed Damer
Atbara
Shendi
Berber
Port Sudan
Suakin
Tokar
Haiya
Karora
Gadamai
Halaib
Salala
Muhammad Qol
KHARTOUM
KASSALA
Omdurman
Khartoum
Halfa al Gadida
Kassala
Asmara
NORTHERN DARFUR
NORTHERN KORDOFAN
EL GEZIRA
Wad Medani
Gedaref
GEDAREF
Sinnar
SENNAR
Gonder
Miski
Umm Badr
Sodiri
Abu 'Uruq
El Geneina
Al Fasher
WESTERN DARFUR
El Obeid
Kosti
En Nahud
WHITE NILE
Abu Zabad
Nyala
SOUTHERN KORDOFAN
Ed Da'ein
Al Fula
Nuba Mts.
Muglad
Kologi
Kadugli
Talodi
Rosk
Ed Damazin
BLUE NILE
Famaka
Tulus
Buram
SOUTHERN DARFUR
Radom
Paloich
UPPER NILE
Malakal
Abyei
UNITY
Kafia Kingi
NORTHERN BAHR
Bentiu
Awell
WESTERN BAHR
Raga
EL GHAZAL
WARRAB
Fathai
Akobo
Kigilo
Wau
BAHR EL GHAZAL
JONGLEI
Rumbek
LAKES
Ukwaa
Towot
Bor
Amadi
WESTERN EQUATORIA
EASTERN EQUATORIA
Yubu
Yambio
Maridi
Juba
Torit
Kapoeta
CENTRAL EQUATORIA
Yei
Nagishot
Ch'ew Bahir
L. Turkana (L. Rudolf)
L. Albert
L. Salisbury
Administrative boundary
SUDAN
National capital
State (wilayah) capital
Town
Major airport
International boundary
State (wilayah) boundary
Main road
Track
Railroad
0 100 200 300 km
0 100 200 mi
Map No. 3707 Rev. 10 UNITED NATIONS
April 2007
Department of Peacekeeping Operations
Cartographic Section

Appendix B

"IS IT AS SIMPLE AS ABC"? – APPLYING UGANDA'S ABC APPROACH AMONGST THE DINKA ETHNIC GROUP OF SOUTHERN SUDAN

SURVEY

THIS SURVEY IS MEANT FOR RESEARCH PURPOSES ONLY. ALL PATICIPANTS WILL REMAIN ANONYMOUS.

INSTRUCTIONS: PLEASE ANSWER ALL QUESTIONS AS HONESTLY AS POSSIBLE. FOR QUESTIONS WHERE THE RESPONSES CORRESPOND TO NUMBERS, PLEASE CIRCLE THE NUMBER ATTACHED TO THE RESPONSE YOU FIND MOST APPROPRIATE. FOR QUESTIONS FOLLOWED BY A BLANK, PLEASE WRITE YOUR RESPONSES IN THE BLANK PROVIDED. SOME OF THE QUESTIONS ALLOW YOU THE OPTION OF CHOOSING MORE THAN ONE RESPONSE AND IN THAT CASE PLEASE SELECT ALL OF RESPONSES THAT APPLIES. FINALLY, FOR SOME OF THE QUESTIONS, RESPONSES CONTINUE ONTO THE NEXT PAGE.

SECTION 1: BACKGROUND INFORMATION

NO.	QUESTIONS	RESPONSE
1.1	CIRCLE SEX	MALE.....1 FEMALE.....2
1.2	CIRCLE THE AGE CATEGORY WHICH APPLIES TO YOU	15 – 20.....1 21 – 25.....2 26 – 30.....3 31– 35.....4 36 – 40.....5 41 – 45.....6 46 +.....7
1.3	PLEASE STATE YOUR PLACE OF BIRTH	_____
1.4	IF YOUR PLACE OF BIRTH WAS NOT SUDAN, WHAT WAS THE LONGEST PERIOD OF TIME YOU EVER SPENT IN SUDAN?	0 – 5 YRS.....1 5 – 10 YRS.....2 10 – 15 YRS.....3 15 – 20 YRS.....4 20 + YRS.....5
1.5	HOW LONG HAVE YOU RESIDED IN THE UNITED STATES?	0 – 2 YRS.....1 3 – 4 YRS.....2 4 – 6 YRS.....3 8 – 10 YRS.....4 10 + YRS.....5
1.6	WHERE DID YOU RESIDE BEFORE MOVING TO THE UNITED STATES?	_____
1.7	WHAT IS YOUR RELIGION?	SPECIFY _____
1.8	WHAT IS THE HIGHEST LEVEL OF SCHOOL YOU ATTENDED? (CHOICES CONTINUES ON NEXT PAGE)	LESS THAN HIGH SCHOOL.....1 HIGH SCHOOL.....2

		ASSOCIATES.....3 COLLEGE.....4 GRADUATE.....5 PROFESSIONAL DEGREE (EX. M.D., PHD ETC.).....6
1.9	OPTIONAL: LEVEL OF INCOME	LESS THAN $10,000.....1 GREATER THAN $10,000.....2 GREATER THAN $20,000.....3 GREATER THAN $30,000.....4 GREATER THAN $40,000.....5 GREATER THAN $50,000.....6 GREATER THAN $75,000.....7 GREATER THAN $100,000.....8
1.10	RELATIONSHIP STATUS	SINGLE.....1 LIVING WITH SOMEONE.....2 MARRIED.....3 WIDOWED.....4 DIVORCED.....5 SEPARATED.....6

SECTION 2: KNOWLEDGE ABOUT HIV/AIDS

NO.	QUESTIONS	RESPONSE
2.1	HAVE YOU EVER HEARD OF HIV/AIDS?	YES.....1 NO.....2
2.2	DO YOU THINK THAT AIDS IS A FATAL DISEASE?	YES.....1 NO.....2

2.3	HAVE YOU EVER BEEN TESTED FOR THE HIV VIRUS SINCE IMMIGRATING TO THE U.S?	YES.....1 NO.....2
2.4	IS THERE ANYTHING A PERSON CAN DO TO AVOID CONTRACTING THE HIV VIRUS?	YES.....1 NO.....2
2.5	IF YOU WERE HIV POSITIVE, WOULD YOU INFORM YOUR PARTNER?	YES.....1 NO.....2 MAYBE.....3
2.6	WHAT CAN PEOPLE DO TO PROTECT THEMSELVES FROM GETTING INFECTED WITH HIV? (PLEASE CIRCLE ALL THAT APPLIES)	USE A CONDOM.....1 HAVE FEWER SEXUAL PARTNERS.....2 BOTH PARTNERS HAVE NO OTHER PARTHNERS.....3 NO SEX AT ALL.....4 NO COMMERCIAL SEX.....5 AVOID CONTAMINATED NEEDLES.....6 AVOID BLOOD TRANSFUSIONS.....7 OTHER (SPECIFY).....8 _____ DON'T KNOW ANY.....9

2.7	IN YOUR OPINION, WHO IS BEST SUITED TO BE INVIOLVED IN THE IMPLEMENTATION OF HIV PREVENTION PROGRAMS AND HIV POLICY? (PLEASE CIRCLE ALL THAT APPLIES)	NATIONAL GOVERNMENTS....1 LOCAL GOVERNMENTS.....2 NON-PROFIT ORGANIZATIONS.....3 COMMUNITY LEADERS.....4 TRIBAL ELDERS/LEADERS.....5 FAITH-BASED ORGANIZATIONS I.E. CHURCHES.....6 GENERAL PUBLIC.....7 ALL OF THE ABOVE.....8

SECTION 3: SOCIAL AND BEHAVIORAL ATTITUDES (ABSTINENCE)

NO.	QUESTIONS	RESPONSE
3.1	AT WHAT AGE DID YOU FIRST HAVE SEXUAL INTERCOURSE?	AGE _____ OR I'VE NEVER HAD SEXUAL INTERCOURSE
3.2	IF YOU ARE MARRIED, AT WHAT AGE DID YOU GET MARRIED?	AGE _____
FOR THE FOLLOWING 2 STATEMENTS PLEASE CHOOSE ONE OF THE 5 CHOICES		
3.3	A DINKA BOY SHOULD ABSTAIN FROM SEX UNTIL MARRIAGE.	STRONGLY AGREE.....1 SLIGHTLY AGREE.....2 NOT SURE.....3 SLIGHTLY DISAGREE.....4 STRONGLY DISAGREE.....5

3.4	A DINKA GIRL SHOULD ABSTAIN FROM SEX UNTIL MARRIAGE.	STRONGLY AGREE.....1 SLIGHTLY AGREE.....2 NOT SURE.....3 SLIGHTLY DISAGREE.....4 STRONGLY DISAGREE.....5
FOR THE FOLLOWING 2 STATEMENTS PLEASE WRITE THE AGE IN YEARS OR CIRCLE RESPONSE 2		
3.5	IF NOT MARRIED, WHAT AGE DO YOU THINK IS AN APPROPRIATE AGE FOR A DINKA MAN TO START ENGAGING IN SEXUAL ACTIVITY?	1) AGE IN YEARS_____ OR 2)THEY SHOULD WAIT UNTIL MARRIAGE
3.6	IF NOT MARRIED, WHAT AGE DO YOU THINK IS AN APPROPRIATE AGE FOR A DINKA WOMAN TO START ENGAGING IN SEXUAL ACTIVITY?	1) AGE IN YEARS_____ OR THEY SHOULD WAIT UNTIL MARRIAGE

SECTION 4: SOCIAL AND BEHAVIORAL ATTITUDES (FAITHFULNESS)

NO.	QUESTION	RESPONSE
FOR THE FOLLOWING STATEMENTS PLEASE CHOOSE ONE OF THE FIVE CHOICES		
4.1	THERE IS NOTHING WRONG WITH AN UNMARRIED DINKA MAN HAVING MORE THAN ONE SEXUAL PARTNER.	STRONGLY AGREE.....1 SLIGHTLY AGREE.....2 NOT SURE.....3 SLIGHTLY DISAGREE.....4 STRONGLY DISAGREE.....5
4.2	THERE IS NOTHING WRONG WITH AN UNMARRIED DINKA WOMAN HAVING MORE THAN ONE SEXUAL PARTNER.	STRONGLY AGREE.....1 SLIGHTLY AGREE.....2 NOT SURE.....3 SLIGHTLY DISAGREE.....4 STRONGLY DISAGREE.....5

4.3	IT IS ACCEPTABLE IN DINKA CULTURE FOR A MAN TO HAVE MORE THAN ONE WIFE IF HE CHOOSES.	STRONGLY AGREE.....1 SLIGHTLY AGREE.....2 NOT SURE.....3 SLIGHTLY DISAGREE.....4 STRONGLY DISAGREE.....5
4.4	BEING FAITHFUL IS THE RESPONSIBILITY OF BOTH THE MAN AND WOMAN IN A RELATIONSHIP.	STRONGLY AGREE.....1 SLIGHTLY AGREE.....2 NOT SURE.....3 SLIGHTLY DISAGREE.....4 STRONGLY DISAGREE.....5
4.5	DO YOU BELIEVE THAT THE PRACTICE OF WIDOW INHERITANCE IS STILL PRACTICED IN SOUTHERN SUDAN?	YES.....1 NO.....2 NOT SURE.....3
4.6	IF YOU ANSWERED YES TO THE PREVIOUS QUESTION, DO YOU BELIEVE THAT WIDOW INHERITANCE SHOULD BE COMPLETELY ELIMINATED FROM DINKA SOCIETY?	YES.....1 NO.....2 NOT SURE.....3

SECTION 5: SOCIAL AND BEHAVIORAL ATTITUDES (CONDOM USE)

FOR THE FOLLOWING QUESTIONS PLEASE SELECT ONE OF THE ANSWER CHOICES		
5.1	I AM CONFIDENT THAT I KNOW HOW TO USE A CONDOM CORRECTLY.	STRONGLY AGREE.....1 SLIGHTLY AGREE.....2 NOT SURE.....3 SLIGHTLY DISAGREE.....4 STRONGLY DISAGREE.....5

5.2	THERE IS NO NEED TO USE A CONDOM IF ONE IS ENGAGED IN A MONOGAMOUS RELATIONSHIP.	STRONGLY AGREE.....1 SLIGHTLY AGREE.....2 NOT SURE.....3 SLIGHTLY DISAGREE.....4 STRONGLY DISAGREE.....5
5.3	THERE IS NO NEED TO USE A CONDOM IF ONE IS MARRIED AND BOTH PARTNERS ARE NOT HIV POSITIVE	STRONGLY AGREE.....1 SLIGHTLY AGREE.....2 NOT SURE.....3 SLIGHTLY DISAGREE.....4 STRONGLY DISAGREE.....5
5.4	A WOMAN HAS THE RIGHT TO DEMAND THE USE OF A CONDOM BY HER PARTNER WHETHER MARRIED OR NOT.	STRONGLY AGREE.....1 SLIGHTLY AGREE.....2 NOT SURE.....3 SLIGHTLY DISAGREE.....4 STRONGLY DISAGREE.....5
5.5	IT IS ACCEPTABLE FOR A DINKA WOMAN, MARRIED OR NOT, TO PURCHASE CONDOMS.	STRONGLY AGREE.....1 SLIGHTLY AGREE.....2 NOT SURE.....3 SLIGHTLY DISAGREE.....4 STRONGLY DISAGREE.....5
5.6	IT IS ACCEPTABLE FOR DINKA GIRLS (LESS THAN 18 YEARS) TO PURCHASE CONDOMS.	STRONGLY AGREE.....1 SLIGHTLY AGREE.....2 NOT SURE.....3 SLIGHTLY DISAGREE.....4 STRONGLY DISAGREE.....5
5.7	MY RELIGION DOES NOT PERMIT THE USE OF CONDOMS DURING MARRIAGE.	STRONGLY AGREE.....1 SLIGHTLY AGREE.....2 NOT SURE.....3 SLIGHTLY DISAGREE.....4 STRONGLY DISAGREE.....5

IF MALE, YOU CAN CHOOSE TO ANSWER THE FOLLOWING QUESTIONS		
5.8	ARE YOU CIRCUMCISED?	YES.....1 NO.....2
5.9	IF YOU ANSWERED NO TO THE PREVIOUS QUESTION, WOULD YOU CONSIDER CIRCUMCISION IF IT WERE PROVEN TO HELP IN THE PREVENTION OF HIV TRANSMISSION?	YES.....1 NO.....2

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