Running head: THE TRAGEDY FACING CHILDREN

AIDS: The Tragedy Facing Children in Sub-Sahara Africa

Katherine Sipes

A Senior Thesis submitted in partial fulfillment of the requirements for graduation in the Honors Program Liberty University Spring 2008

# Acceptance of Senior Honors Thesis

This Senior Honors Thesis is accepted in partial fulfillment of the requirements for graduation from the Honors Program of Liberty University.

Jean St. Clair, Ph.D.
Chairman of Thesis
Angela Olmsted, Pharm.D.
Committee Member
Mark Schmidt, Ph.D.
Committee Member
James Nutter, D.A.
Honors Director
Date

## Abstract

Few things affect the entire world, and HIV/AIDS is one of them. While the whole world is affected by this terrible disease, the area of sub-Sahara Africa has been affected the most with large quantities now suffering because of HIV/AIDS. Children have become major sufferers of HIV/AIDS, both from having the disease passed on to them and from being orphaned as parents die of AIDS. When numbers are combined, four countries alone in sub-Sahara Africa have together over 660,000 children with HIV/AIDS and over four million orphans. It is important to know what is being done to help the sufferers and what still needs to be done to assist in the HIV/AIDS crisis amongst children in sub-Sahara Africa.

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Introduction

There are few things that have the whole world's attention, few things that have an affect everywhere in the world. There is one thing that has been growing over the past few decades that is finally catching the attention of people around the world because it affects people from all places. It is the human immunodeficiency virus [HIV] and acquired immunodeficiency syndrome [AIDS]. HIV/AIDS is a horrible disease involving a decrease in the human immune system's ability to function. Eventually the disease ends in death because currently there is no cure. HIV/AIDS affects both the young and the old, and the number of children who have the disease is greatly increasing. Although all nations have people with the disease, sub-Sahara Africa contains the majority of people who have HIV/AIDS. In 2005, the total number of children in the world who had HIV was 2.3 million and two million of those lived in sub-Sahara Africa (UNAIDS, 2006). Sub-Sahara Africa consists of forty-four countries which includes all of Africa except for Morocco, Western Sahara, Algeria, Tunisia, Libya, Egypt, and Sudan. Some countries that are included in sub-Sahara Africa include Sierra Leone, Nigeria, Ethiopia, Uganda, Kenya, Rwanda, Zimbabwe, South Africa, and Botswana. With such a large crisis affecting children, it is important to know the background of the disease, a child's physical response to HIV, the effects of HIV/AIDS on sub-Sahara Africa in children who have the disease, and the effects of the disease on the children who are left behind because of the disease. It is then good to look at what is being done for those who are suffering because of the disease, specifically in four countries in sub-Sahara Africa.

## Background Information on HIV/AIDS

What is HIV/AIDS? HIV/AIDS was first found in the United States in 1981. It was present in sub-Sahara Africa before that, though the exact time it appeared is really not known (Cooper, 1995). HIV/AIDS is transmitted sexually, through exposure to infected blood, or by contaminated needles. It is not transmitted by simple contact with a person who has HIV (Bettelheim, 1998). Many people have been infected by HIV because of risky lifestyle choices. However, there is a growing population of innocent people who have HIV/AIDS. Some people get HIV by being raped by someone who is infected. Many newborn babies can have HIV if their mother was infected; in fact, 25-50% of mothers will pass on HIV to their infants if they are not treated with medication (AIDS/HIV, 2006). Of all the people in the world who have HIV/AIDS, over 95% of them live in developing countries (Backgrounder, 2000). Because of HIV/AIDS in several sub-Saharan African countries the average life span is decreasing (Special Focus, 2000).

HIV is a virus that attacks the T cells in the body's immune system. It grows, sometimes undetected in the T cells and then leaves the T cells to go and attack other cells (Bettelheim, 1998). The time it takes for a person to have full-blown AIDS after being infected by HIV varies. In some cases, HIV can spread rapidly and AIDS can overtake a person in just a couple of years. Most of the time however, HIV takes many years to multiply and take over a person's immune system. During that time period, a person might not know that they are infected with HIV because often there are little to no symptoms until the disease is progressed (Lewis, Heitkemper, & Dirksen, 2004). They

then could be spreading the virus around to others without knowing that they themselves are infected.

Most individuals do not die of AIDS alone. AIDS weakens the immune system so that other infections and diseases can attack the person which a healthy person would be able to successfully fight. When a diagnosis of AIDS is made, there are two hundred or fewer T-cells per mm3 of blood remaining in the body (Bettelheim, 1998). Some of the infections that are common in a person who has AIDS are Kaposi's sarcoma, meningitis, tuberculosis, and pneumonia (Bettelheim, 1998). Pneumocystis carinii pneumonia (PCP) is also very common in people with AIDS and is a common reason for the death of a child that has AIDS (Mawela, 2006).

Child's response to HIV/AIDS. Although both young and old alike are affected by HIV/AIDS, the growing number of children affected by HIV/AIDS is astounding. At the close of 2005, approximately 2.3 million children in the world had HIV/AIDS (Reddi et al., 2007). For the most part, the children are innocent sufferers of HIV/AIDS; they have not made the wrong lifestyle choices many adults do that get infected by HIV. Young children who have HIV/AIDS usually contracted the disease either from their mother sometime during pregnancy or delivery or from being sexually abused by someone with the disease (Bettelheim, 1998; Slonim-Nevo & Mukuka, 2007). Eight hundred thousand of the five million people with a new diagnosis of HIV in 2002 were children. Ninety percent of those children were born to mothers who had HIV/AIDS (Perez et al., 2007).

It has been found that roughly 20% of the children who are born with HIV will have AIDS within one year; these children are likely to die before they reach the age of

four (Backgrounder, 2000). A key problem is that a newborn baby does not have a fully developed immune system (Espanol, Caragol, Soler, & Hernandez, 2004). The rest of children born with HIV do not develop AIDS as quickly. They may not become extremely sick from the virus until they reach primary school or even adolescence. However, when children do not receive medical treatment, the average lifespan of a child infected with HIV is about ten years (Spencer et al., 2007).

Children with an HIV infection typically progress more rapidly than adults (*Pediatric antiretroviral treatment*, 2007). One thing that has been found to help determine whether or not the development of AIDS will be quick or slow in children born with HIV is the mother's level of HIV infection and her levels of vitamin A through the pregnancy. If a mother has a higher viral load, or more HIV present in her blood, she would be more likely to pass the virus along to her child. Another thing that has been found to predict whether or not a child will progress quickly to AIDS is the level of HIV in their blood, along with the number of T-cells in their blood a few months after birth. If the viral load is relatively low and the T-cells are relatively high, then the child would have a better prognosis of a longer life (Backgrounder, 2000).

Children who have adequate nutrition have the chance to live longer with HIV because that can postpone the beginning of AIDS as well as avoid common diseases associated with HIV (O'Brien, 2005). Diseases that are common in children with HIV/AIDS include PCP, persistent diarrhea from opportunistic infection, cytomegalovirus (CMV), dangerous bacterial infections, candidiasis, and lymphocytic interstitial pneumonitis (Backgrounder, 2000). When children are malnourished they loose weight and they can die much easier, especially when they have AIDS. Thus,

children who have HIV/AIDS have nutrition requirements that are greater than before they had the disease. Before other symptoms of HIV infection are present, a child needs more energy from food to grow and stay as healthy as possible. When AIDS is present in a child, the excess energy requirements from food needed to maintain health and growth can be as high 20-30% greater than what a child would need who does not have AIDS (Spencer et al., 2007). However, due to famine and poverty food is not readily available to all children and malnutrition is common among both children with and without HIV/AIDS in developing countries.

It can be hard to diagnose a child with having HIV shortly after birth. This is true if a mother has HIV/AIDS and her body has tried to build up antibodies against the virus. During the pregnancy antibodies against HIV could then be passed to the infant. A blood test would show those antibodies up to fifteen months after delivery and then appear to be positive for HIV, even if the baby did not contract the virus from the mother (Schoub, 1999). One sign of infection for infants and children who might have an HIV infection that has not been diagnosed yet is a failure to thrive, which is a lack of growth and development in a child (Mawela, 2006). It is important to know the HIV status of an expectant mother so that her infant can be checked for HIV as early as possible and treated if HIV positive (Mawela, 2006).

One concern that is present more so in young children compared to older children or adults is the possibility of the HIV virus to enter into the central nervous system, including the brain. If this were to happen the child could potentially have difficulty with developing their motor skills, language capacities, and cognitive capabilities (Wiener & Martin, 2002). However, older children who have HIV can have the virus enter their

brain as well. Symptoms of brain infection in youth can consist of hyperactivity, school failure, alterations in mood, inability to concentrate well, and certain difficulties with motor movements. If an older child has an unknown diagnosis of HIV/AIDS, psychosis can be a main sign of a late-stage HIV infection (Rita, 2007).

Children in Sub-Sahara Africa. Children all over the world have been affected by HIV/AIDS. Many have already died from AIDS and so many more are living now and suffering with the disease. In fact, in the year 2005 over half a million children died because they were in infected with HIV and had developed AIDS; most of those children resided in the developing world (*Pediatric antiretroviral treatment*, 2007). There are some medications that can help to slow the progression of HIV and alleviate some of the suffering for the children. Antiretroviral therapy [ART] helps a person's immune system, advances growth, and reduces the incidence of opportunistic infections. All this helps to lessen the number of children who die quickly from HIV/AIDS. With ART, a person has to stay on the medication in order for the benefits to work. When a person who has been on ART goes off the treatment, they have a much higher chance of getting a disease and the HIV advances rapidly (Bikaako-Kajura, 2006). Crowe says: "For children living with HIV, getting treatment as early as possible can make a difference between thriving and just surviving" (2006 August).

However, in order to have medications for HIV, large sums of money must be spent because the medicines are so expensive. The total cost of all the medications needed to slow down the progression of AIDS can easily be over \$15,000 per child each year (Bettelheim, 1998). Children infected with HIV who live in developed countries, such as the United States, can take the medicines if their parents, other family members,

or government programs have the money to spend for them. Unfortunately, the vast majority of children sufferers' are not in developed countries, but in the poorer developing countries. Those children often do not have the resources available to them to pay for medication to help them deal with HIV/AIDS. They then must suffer the horrible disease process without medications until the disease kills them (Backgrounder, 2000).

The HIV/AIDS crisis is especially real to the children in sub-Saharan Africa. In the year 2006 it was figured that 90% of all of the children who are infected with HIV were from sub-Sahara Africa (Bikaako-Kajura, 2006). It unfortunately is in that area of the world where the money is not typically available for most people with HIV. In 1998, the governments in some countries such as Zambia and Botswana where HIV/AIDS is widespread only had around \$10 available per person to help with medical costs (Bettelheim, 1998). Thus, adequate medication for all people with HIV/AIDS is impossible.

While the government does not have all of the resources needed to help the children suffering from HIV/AIDS, there still is another window of hope for those who need it. Some of that hope comes from Catholic or Christian Church based organizations in Africa that provide care for those who have HIV/AIDS (Chikwendu, 2004; Foster, Levine, & Williamson, 2006). This care can come in the form of hospitals, clinics, or orphanages. There are also other organizations that work to try and help in the HIV/AIDS crisis. An international organization that works to fight HIV/AIDS is UNICEF. This organization works to help children and women all around the world in various ways. Specific to the HIV/AIDS crisis, UNICEF assists children who have been

affected by HIV/AIDS, works to decrease the transmission of the virus from mothers to infants, and provides education to teens about HIV/AIDS and how to prevent it (*United Nations International Children's Emergency Fund*).

Those left behind. The HIV/AIDS crisis affecting children in sub-Saharan Africa is bad enough if only the children who have HIV/AIDS are considered. However, there is a population of children who are affected by HIV/AIDS, but not by having it themselves. The victims of this crisis are not only those children who have HIV/AIDS, but also those who are left behind. According to the World Bank (2002), at the completion of the year 2001 a total of 15.6 million children under age 15 had faced the death of their mother or both of their parents as a result of HIV/AIDS. It is estimated that in the year 2010 in sub-Sahara Africa that around 50% of all orphans will be orphaned because of HIV/AIDS (Kim, 2004). The United Nations has changed the definition of an orphan because of the HIV/AIDS crisis to a child who has had one parent die because often times the second parent will soon die as well in sub-Sahara Africa (Kawawe, 2006). Joslin (2002) gave rough approximations of the number of children who have been orphaned by AIDS in several sub-Sahara African countries. For example, in Malawi 6% of the children were orphaned because of HIV/AIDS, in Zimbabwe the number is 7%, in Zambia 9%, and in Uganda the number of children orphaned because of HIV/AIDS was as high as 11%.

So many adults are dying and leaving children alone who are without HIV that there are few people left to care for them. For example, in the country of Kenya 14% of all of the adults have AIDS (Masci, 2000). Many of these adults have children and when the adults die from disease many of the children have no one to care for them. Some

children are able to be cared for by grandparents, however many grandparents have reached the age where they really can not care for the many children orphaned because of AIDS (Masci, 2000). The grandparents also in many countries are not able to supply enough food or money for themselves plus the grandchildren because they are no longer able to work because of age (Joslin, 2002). In so many places the children have to care completely for themselves if there are no grandparents to care for them and they can not provide enough to live well off of either (Thurow, 2003). These children live with a very high probability of being malnourished as well as not being able to receive an education to have a good future (Copson, 2003). However, there are a few places where these children are not left completely alone. The African churches not only provide help to those children who have HIV/AIDS, but also to the children who have been orphaned because of the virus (Chikwendu, 2004).

Four Profiles on Different Sub-Sahara Africa Countries

So what is being done to help children who have HIV/AIDS or have been orphaned because of this horrible epidemic? What hope is there for the children of sub-Sahara Africa? A look at four of the larger countries in sub-Sahara Africa, Kenya, South Africa, Uganda, and Zimbabwe, will show that children who have been affected by HIV/AIDS are not completely forgotten. However, much work is left to do if HIV/AIDS is to be stopped and all the children affected by this disease are to receive care.

*Kenya*. In the country of Kenya, there are over 150,000 children who have HIV/AIDS (UNAIDS, 2006). Fourteen percent of all the adults in Kenya have HIV/AIDS (Masci, 2000). Parents dying due to AIDS has left over 1.1 million children orphaned between birth and seventeen (UNAIDS, 2006).

One organization in Kenya that is trying to fight HIV/AIDS is Tenwek hospital. Tenwek is a mission hospital located in western Kenya and it serves people in a thirty-two kilometer radius. This hospital has two programs to assist the people in the area in the fight against HIV/AIDS. The first program is a community health program. As a part of this program, hospital staff work out in the community instructing students, teachers, and youth leaders about HIV/AIDS and abstinence as the best way to prevent getting HIV. The community health program also provides voluntary counseling for people with HIV/AIDS as well as testing centers. The program works to inhibit the spread of HIV from pregnant mothers to their infants. Finally, the community health program prepares local churches to become involved as well in fighting against HIV/AIDS (*Tenwek Hospital*).

The second program that Tenwek hospital provides in the fight against HIV/AIDS is located directly in the hospital and is part of a larger government health program. This program treats both adults and children who already have HIV/AIDS. The program requires an initial hospital visit and then two follow-up visits before any medication is prescribed. The follow-up visits must be kept on the exact day that they are scheduled. The main reason for the follow-up visits is to make sure that the person will be able to obtain reliable transportation and make it to the hospital on future appointments to get medications. These precautions are important because resistance to antiretroviral medications can develop quickly if there are missed doses. The government requires that a price be paid for the medications and care received for HIV/AIDS. The people who are a part of this HIV/AIDS program at Tenwek have to pay one hundred shillings per month. This covers all of the medications that they need, laboratory work that is

necessary, and doctor visits. One hundred shillings is about a day's wages in Kenya and correlates to less than \$2 US.

While these programs are good, there is current trouble in Kenya that has the potential to set back health care in Kenya. After the December 2007 election, there has been fighting between several of the tribes. Road blocks have been set up preventing people and supplies from reaching the places where they need to go. Several hundred people have been killed as a result of the fighting so far. There is great potential of more deaths related to HIV/AIDS and not fighting because of this conflict. A possibility of relapse for people on antiretroviral medications exists because people are not able to travel safely and obtain refills on their medications. This would send the death rate due to HIV/AIDS up because the HIV status of people that had been well controlled and slowing the progression of the disease would no longer be affective. Adults and children with HIV/AIDS would die faster without the medication. More children would be left as orphans because of HIV/AIDS.

Another problem that could be caused by the inability to travel and obtain refills in medications the development of resistance to the medications by the virus. This can cause a couple of problems. First of all, the person who develops resistance to a medication will no longer be able to take that medicine and it be affective for them. They will have to find a new medication that their virus is not resistant to, and there may not be one. Their disease will then progress and they will die sooner from AIDS than they probably would have with the medicine. Before that person dies, there would be a potential risk of them passing on the resistant strain of the virus to others, causing more

and more people to be infected with a virus that does not respond to certain medications which will eventually raise the number of deaths due to AIDS even higher.

There are several other programs and organizations that are fighting against HIV/AIDS in Kenya. One is called Pepo La Tumaini Jangwani, which translates as Wind of Hope in the Desert. It is a program that is community centered in preventing HIV/AIDS and caring for those with the disease. This program offers support to children with HIV/AIDS by giving them education, medical care, and food as well as sending them to a local hospital if needed (O'Brien, 2005). A second program is in Nairobi, where there is an organization associated with an orphanage that works to assist the families that are trying to raise and nurture children who have HIV by supplying medical care as well as social assistance (Hamra, Ross, Karuri, Orrs, & D'Aggostino, 2005).

Another program is a girl's sports program. The program is the Mathare Youth Sports Association. It is helped by UNICEF. This program teaches girls about HIV/AIDS and how to prevent it, as well as providing the girls with an avenue to be involved in service within their communities, preparing them to be leaders, the opportunity to play sports, and a time to do their homework and study for school. The Mathare Youth Sports Association also assists the girls in knowing how to deal with other harmful matters that they might face other than HIV/AIDS such as the misuse of drugs, rape, and prostitution (McBean, 2006).

South Africa. In the country of South Africa, there are over 240,000 children under the age of fourteen who have HIV/AIDS and over 1.2 million children from birth to age seventeen have been orphaned because their parents have died from AIDS (UNAIDS, 2006). In comparing all of the countries in the world, South Africa has the

second highest HIV/AIDS frequency (Crowe, 2007). The girls and young women in this country from the age of fifteen to the age of twenty-five have a chance that is five times greater of developing AIDS then boys and young men in the same age group (Crowe, 2006 April). It is this generation of people that are most likely to be having children and risking the spread of HIV to the children that they have, increasing greatly the children who are infected with this horrible disease. In fact, in those aged twenty to twenty-nine, 47% have HIV/AIDS and to them alone the number of children born who also are infected with the disease has tripled in the last fifteen years and many of those children die before they have reached the age of one year (Crowe, 2007). Forty percent of the deaths in children under five years old are because of HIV/AIDS (Pediatric antiretroviral treatment, 2007). It was estimated in 2006 that only about 20% of the children who should have had medication for HIV/AIDS were actually receiving the treatment that they needed (South Africa, 2006). There is a shortage of medical staff that is able to assess the children and give them the medications (Cross & Warriner, 2006). So even if medicines were available, the children might still not get them because of the lack doctors and nurses.

The situation in South Africa appears to be bleak when considering the enormity of HIV/AIDS in that country. However, in the continent of Africa, South Africa is one of the most affluent countries (Crowe, 2007). This country is using its resources and has made many attempts at decreasing HIV/AIDS. The government of South Africa has great concern for its children and has therefore passed legislation that funds the fight against HIV/AIDS and various programs that care for children affected by the disease and protect their rights (Crowe, 2006 August). South Africa is working hard at

prevention of HIV/AIDS. In 2006, the minister of health said, "Unfortunately, up until now too much of the focus has been on treatment and there has been a lack of focus on prevention [...] in the absence of a cure, prevention has to be the mainstay in the struggle against AIDS" (Crowe, 2006 April). South Africa's prevention program incorporates three different key aspects that are used all over Africa. Those three things are abstinence before marriage, faithfulness in marriage, and the use of condoms (Crowe, 2006 April).

In fighting against HIV/AIDS and helping the many children who are at risk of becoming orphans, South Africa works at providing treatment for parents in order to keep them alive longer to care for their children (*South Africa*, 2006). The government also tries to make health care available to children who have HIV/AIDS and provide them with the medications that they need in order to stay alive (*South Africa*, 2006). South Africa has also come up with a way to test infants earlier after birth, rather than the typical eighteen months after birth, to determine their HIV status and hopefully be able to provide treatment sooner (Crowe, 2006 August). This technique takes several drops of blood and applies them to paper and allows them to dry. The dried blood is able to be transported to a laboratory and tested for HIV rather easily. This process is simpler and faster because it does not need as much care in transporting to a lab and does not require a lengthy process in preparing the blood to be tested.

A program in South Africa that works mainly with abandoned infants, some who may have been exposed to HIV/AIDS at birth. The program is called Door of Hope Children's Mission and is located in Johannesburg, South Africa. Door of Hope is an orphanage and it brings in the infants that are abandoned and gives them a good atmosphere in which to grow up. The program also works with different communities to

make sure that children whose parents died of HIV/AIDS and are now being taken care of by grandmothers are cared for after her death (Taylor, 2002).

There are people who are doing something about the HIV/AIDS crisis in South Africa who are not part of an organization. In Alexandra Township there is a group of grandmothers that have created a support group for themselves that they call Go-Go Grannies. They offer each other encouragement to each other while they raise their grandchildren. The group also offers counseling to children who are grieving the loss of their parents, as well as monetary help in building houses and planting gardens (Kawawe, 2006).

*Uganda*. The country of Uganda has a total of 110,000 children who have HIV/AIDS (UNAIDS, 2006). According to UNICEF, forty children are newly infected in Uganda with HIV each day (Hyun, 2007). In 2005 the estimate number of children who die each year because of AIDS was 14,000, which corresponds to one child dying in the country of Uganda each hour (Uganda 2005). HIV/AIDS, as well as poverty and war, is leaving many children in the country of Uganda in an unprotected position. The Uganda National Household Survey defines vulnerable children as orphans, living in a household that is run by a child or an elderly person, not attending school, married, having a disability, non-orphaned but not living with their parents, or a child laborer (Hyun, 2007). According to this way of defining the vulnerability of children, 65% of children in Uganda fall into that category (Hyun, 2007). A total of over one million children have been orphaned due to AIDS (UNAIDS, 2006). This is about half of all the orphans in Uganda (Hyun, 2007).

The people of Uganda work in a few ways to try to end HIV/AIDS. The country begins by providing education to its children and young people about HIV/AIDS and how they can prevent themselves from getting the disease. Secondly, Uganda puts an effort into making testing for HIV available to its people and then offering medication and other therapy for those who have the disease. Finally, a goal of having at least 50% of children tested for HIV within the following five years has been set in Uganda (Hyun, 2007).

As is true in other countries such as Kenya and South Africa, there are organizations in Uganda that provide support to children who have HIV/AIDS or have been orphaned because of the disease. For example, a non-government organization called Youth Social Work Association helps homes where the head of the house is an orphan by providing items such as clothing, household utensils, and tools for farming (Hyun, 2007). Another organization that helps orphans is called Uganda Woman's Effort to Save Orphans (Ugandan Children, 2006). This organization helps children who other wise would have no hope by giving money so that better houses can be built for orphan families to live in; they also have planted gardens so that the children would have food and have made arrangements with community members to make sure that the children are doing well on a frequent basis.

Another program that helps children affected by HIV/AIDS in Uganda was started in 1998 by a British nurse and is called the Mildmay Centre. This place is located right outside the capital of Uganda, Kampala. It started out by providing outpatient assistance to children with HIV/AIDS as well as a training center to prepare people to care for those with HIV/AIDS. Right now, this place is only able to help around 3500

children in the area of Kampala. Through this program, clinics are offered four days a week. Mildmay Centre grew to incorporate a fourteen bed hospital in order to care for some of those who are sicker with HIV/AIDS. A day care building is also now available for children under the age of eighteen. Mildmay Centre also offers training for jobs, education for children, and avenues for children to earn some money. It also offers counseling to those with HIV/AIDS, medications to treat HIV/AIDS, and recommendations for nutrition (Alderman, 2005 & Bikaako-Kajura, 2006).

Zimbabwe. There is some good news in Zimbabwe when it comes to HIV/AIDS. The occurrence of HIV/AIDS has decreased to 15.6% in the year 2007 amongst the people of Zimbabwe over the past several years. One of the fastest dropping rates is within pregnant women between the ages of fifteen and twenty-four; it was 20.8% in 2002 and went down to 13.1% in 2006. One reason for the drop in HIV/AIDS has been the education to young people about the disease and how to prevent HIV transmission. Another reason for the decrease has been some government programs that provide education and financial support. Unfortunately, some of the decline in the percentage of the population that has HIV/AIDS has been due to the deaths of those with the disease (Zimbabwe's infection rate, 2007).

However, the country of Zimbabwe has a long way to go. Zimbabwe became an independent country in 1980. Since that time, the country has been plagued with droughts, a plummeting economy due to political chaos, guerrilla warfare, infringements of human rights, and little if any support form other countries (*Zimbabwe's forgotten children*, 2007). The economy of Zimbabwe has been called the "fastest shrinking economy outside a war zone" in the world (Elder, 2006 September). The average amount

of money that is donated per person per year who is infected with HIV in southern Africa, not including Zimbabwe, is \$74. In Zimbabwe that amount per person is only \$4 (Elder, 2005 March).

In the year 2006, 25% of adults in Zimbabwe had HIV/AIDS (Elder, 2006 September). Also in 2006 on average three thousand people died in the country of Zimbabwe every week because of AIDS (Elder, 2006 September). Because of the high prevalence of the disease among adults and then demise of adults with AIDS, over 1.1 million children under the age of seventeen are now orphans because of HIV/AIDS (UNAIDS, 2006). Some reports have been as high as 1.6 million children orphaned because of AIDS in Zimbabwe (Elder, 2007). That comes to 20% of the children in Zimbabwe who are orphans because of HIV/AIDS alone (Elder, 2005 March).

The country of Zimbabwe has a total of 160,000 children under the age of fourteen who have been infected with HIV (UNAIDS, 2006). In 2006 it was estimated that 100 infants newly became HIV infected each day (Elder, 2006 September). The increase in child mortality is the greatest in the world; from 1990 to 2005 the mortality rate for children under five rose 50% (*Zimbabwe's forgotten children*, 2007). In 2005 the number of children that died because of HIV/AIDS was so enormous that it would have come to a child dying every fifteen minutes (*Zimbabwe's forgotten children*, 2007). That was four times worse than the child mortality rate in Uganda the same year. With the child mortality rate being so immense the life expectation for a person in Zimbabwe has dropped greatly. In 1990 the normal life span of a person was sixty-one years; in 2005 it was thirty-three (Elder, 2005 March).

The care of those who have HIV/AIDS in Zimbabwe is lacking greatly. Only a third of the people who need medication and other healthcare for HIV/AIDS are actually getting what they require (*Zimbabwe's infection rate*, 2007). Merely one out of every sixteen children who need medication because they are infected with HIV receives any medicine (Elder, 2007). The number of pregnant women with HIV/AIDS who do not receive medication is just as grim. Around 85,000 women who were HIV positive were not given medication when they were pregnant in 2006 (*Zimbabwe's infection rate*, 2007). Also, because the economy is so poor in Zimbabwe doctors have been leaving the country to find jobs elsewhere and nurses do not go to work because it costs them more to get to work than what they make. There is therefore a huge deficit in healthcare for everyone, including those who have HIV/AIDS.

There are some things that the people of Zimbabwe are trying to do to combat HIV/AIDS. One program is in Mutare, Zimbabwe and is supported by UNICEF and Haarlem, Holland. It is a sports program called 'Kicking AIDS Out Through Sport'. Through this program, over fifty-five young people lead children and their peers in games and sports while instructing them about HIV/AIDS as well as how to prevent child abuse. The sports program goes into schools and provides the children with education that is fun for them. Children who knew very little about HIV/AIDS leave with an understanding about the disease and how to prevent it. One of the volunteers that helps lead the program says, "It's a three-in-one success. We build HIV awareness, confidence and health" (Elder, 2006 November; Singizi, 2007 November).

Another program in Zimbabwe to help orphans specifically is a camp in southern Zimbabwe that is sponsored by Japan, the UN Human Security Fund, and UNICEF. This

camp takes in orphans from all over the country and educates the children about HIV/AIDS and personal growth. It also helps the children deal with their grief of loosing parents. Tools that the camp uses to accomplish these things include singing, theater, games, and dances. The camp's main goal is to give children hope despite their present circumstances. One orphan girl who was thirteen years old and taking care of two younger brothers said this after she was given a chance to go to the camp: "I want to help all three of us make something of our situation. This week has begun all that for me" (*Giving Hope*, 2005). Hope was given to this one thirteen year old girl, and similar stories can probably be told about other children who have been given a chance to experience this camp.

Hospice, or home health care, for those who are dying has been used some in sub-Sahara Africa. When the AIDS crisis became so huge, like it is in Zimbabwe, that the programs already in existence could not handle it any more something new had to be done. One hospice program in Zimbabwe joined up with more organizations as well as volunteers from within the community. In that way, the hospice program was able to still work because the volunteers were able to do some of the things that the professionals had done leaving more time for them to do more specific tasks (Corless & Nicholas, 2003).

Young people in Zimbabwe have been an integral part in spreading awareness about HIV/AIDS to the rest of the country. A group called Young People We Care goes around the community where its members are from and spreads the message about HIV/AIDS through dance and singing. They seek to cause a reduction in HIV/AIDS by altering the behavior of themselves and others in such ways as abstinence, having fewer partners, and the use of condoms. The group acknowledges that girls were engaging in

sex as a way of income so that they could survive; since the group started performing a decrease in the number of girls doing so has been noted. This group does more than just informing their peers about HIV/AIDS and what to do to prevent it. They also are involved in community service by helping people who have been affected the most because of the disease (Singizi, 2007 December).

With astounding numbers of orphans because of HIV/AIDS in Zimbabwe, the question needs to be asked, where are these children going? Many children who have been orphaned go to live with their grandmothers. These grandmothers can be in their seventies or eighties, well above the life expectancy for Zimbabwe and above the age that they should be needed as full-time caregivers for children (Elder, 2005 March, 2006 September, 2007). The houses that these grandmothers and grandchildren have to live in are often not in good condition and they are usually small (Elder, 2005 March, 2006) September). Often times the children are not all from the same parents; cousins all come to live under one roof with their grandmother because their parents had died from AIDS (Elder, 2005 March, 2007). Sometimes, the children have HIV/AIDS because they received it from their mothers when they were born and so the grandmothers have to take care of them as they die (Elder, 2005 March). Malnourishment is also a huge problem amongst orphans living in households headed by a grandmother (Elder, 2005 March). This can have an affect on the relationships that children have with their peers at school; children with little may be afraid to play with the children who have food because they will be looked down upon (Elder, 2005 October).

UNICEF has set up assistance that helps grandmothers and the orphans that they have to take care of. Things that they offer include food programs to prevent

malnutrition, healthcare, protection, and education (Elder, 2006 September, 2007). Another program that they support is a daycare for young children so that the older children can go to school and not worry about having to take care of younger siblings during the day (Elder, 2005 March). One grandmother who has five grandchildren from ages three to sixteen, living with her is now receiving assistance from UNICEF and her grandchildren are able to go to school again. She says that when her grandchildren do well in school that it all gives meaning to the work that she has to do at her age (Elder, 2006 September).

#### Conclusion

HIV/AIDS is a horrible disease that has spread across the world in the past 30 years. HIV attacks a person's immune cells and duplicates itself inside those cells. HIV can lay dormant in a person for years before they know that they are infected. When HIV has built up to a high enough level where a person's immune system is severely compromised, they are said to have AIDS. With the highly compromised immune system, opportunistic infections occur and are often the cause of death for a person who has AIDS. Children unfortunately have not been immune to the horrible effects of HIV/AIDS. Many children have become infected from their mothers through pregnancy, birth, or breastfeeding. Children have also been infected through sexual abuse. Some children who are born with HIV have a very rapid succession of HIV to AIDS and can die before they are even a few years old. Other children who become infected at birth do not start to show symptoms until they are primary school age. It can be very difficult to diagnose infants with HIV early which causes delays in obtaining treatment. With

children who have HIV/AIDS, good nutrition is very valuable because it can give their bodies strength to fight from day to day.

While there are children all around the world who face HIV infection, children in sub-Saharan Africa by far have had to carry the heaviest weight of this disease. Hundreds of thousands of children in that part of the world have become infected, many through birth. Unfortunately, in that part of the world people do not often have the resources to get proper medical care and medications for those who have HIV/AIDS. It is not only the children who have HIV/AIDS that suffer. The age group that has the highest percentage of HIV/AIDS victims is also the age group that is having children. When those parents die, they leave behind what are now millions of orphans. The need for help for children in sub-Sahara Africa is so immense. Fortunately, there is a ray of hope for some children who are suffering due to organizations and programs that have been started specifically for those children.

The countries Kenya, South Africa, Uganda, and Zimbabwe each have over a million orphans as a result of AIDS and thousands of children who have HIV/AIDS. These four countries have put up a fight against HIV/AIDS. In these countries there are hospitals, clinics, and hospice centers to take care of those who have HIV/AIDS. There are also programs to instruct people about HIV/AIDS and how to prevent it from spreading. Finally, each country has programs to take care of orphans whose parent's died of AIDS. While progress is being made in the fight against HIV/AIDS, the need is still great. The question that now remains, who else will help those who desperately require help?

#### References

- AIDS/HIV. (2006). *National Institute of Child Health & Human Development*. Retrieved February 22, 2007, from http://www.nichd.nih.gov/health/topics/aids\_hiv.cfm
- Alderman, C. (2005, June 22). At grandma's home: Pioneered by Ruth Sims, the Mildmay Centre in Uganda is a beacon of hope for adults and children with HIV/AIDS. [Electronic version]. *Nursing Standard*, *19*(41), 24-27.
- Backgrounder- HIV infection in infants and children. (2000, February). National Institute of Allergy and Infectious Diseases. Retrieved February 28, 2007, from http://www3.niaid.nih.gov/news/newsreleases/2000/drug\_regimen\_backgrounder. htm
- Bettelheim, A. (1998, December 4). AIDS update. *CQ Researcher*, 8, 1049-1072.

  Retrieved February 21, 2007, from CQ Researcher Online,

  http://library.cqpress.com/cqresearcher/cqresrre1998120400.
- Bikaako-Kajura, W., Luyirika, E., Purcell, D., Downing, J., Kaharuza, F., Mermin, J., et al. (2006, July). Disclosure of HIV Status and Adherence to Daily Drug Regimens Among HIV-infected Children in Uganda. [Electronic version]. *AIDS and Behavior*. 10(1), 85-94
- Chikwendu, E. (2004) Faith-based organizations in anti-HIV/AIDS work among African youth and women. [Electronic version]. Dialectical Anthropology. 28(3/4), 307-27.
- Cooper, M. H. (1995). Combating AIDS. *CQ Researcher*, *5*, *345-368*. Retrieved February 21, 2007 from CQ Researcher Online

- Copson, R. W. (2003). AIDS in Africa. *The Library of Congress*. Retrieved April 30, 2007, from http://img.thebody.com/whatis/pdfs/aids\_africa.pdf
- Corless, B. I., & Nicholas, P. K. (2003) Hospice around the world. In *Macmillan*Encyclopedia of Death and Dying. (pp. 434-437) New York: Macmillan

  Reference. Retrieved February 21, 2007, from Gale Virtual Reference Library.
- Cross, R. & Warriner, J. (2006, July 19). Caring for the children. [Electronic version].

  Nursing Standard, 20(45), 23-26.
- Crowe, S. (2006, April 12). New initiative aims to accelerate HIV prevention throughout Africa. *UNICEF*. Retrieved January 21, 2008 from http://www.unicef.org/infobycountry/southafrica\_33360.html
- Crowe, S. (2006, August 9). New HIV testing method allows early diagnosis for infants in South Africa. *UNICEF*. Retrieved January 21, 2008 from http://www.unicef.org/infobycountry/southafrica\_35266.html
- Crow, S. (2007, June 8). At South Africa's third national AIDS conference, all eyes on rising child mortality. *UNICEF*. Retrieved January 21, 2008 from http://www.unicef.org/infobycountry/southafrica\_39952.html
- Elder, J. (2005, March 24). HIV/AIDS: A deadly crisis each day in Zimbabwe. *UNICEF*.

  Retrieved January 21, 2008 from

  http://www.unicef.org/infobycountry/zimbabwe\_25834.html
- Elder, J. (2005, October 25). Zimbabwe launches Unite for Children Unite Against AIDS campaign. *UNICEF*. Retrieved January 21, 2008 from http://www.unicef.org/infobycountry/zimbabwe\_29432.html

- Elder, J. (2006, September 26). AIDS crisis strains family life in Zimbabwe. *UNICEF*.

  Retrieved January 21, 2008 from

  http://www.unicef.org/infobycountry/zimbabwe\_36003.html
- Elder, J. (2006, November 9). Sports programme helps children fight AIDS and abuse in Zimbabwe. *UNICEF*. Retrieved January 21, 2008 from http://www.unicef.org/infobycountry/zimbabwe\_36529.html
- Elder, J. (2007, July 20). UNICEF expands its outreach to children affected by HIV in Zimbabwe. *UNICEF*. Retrieved January 21, 2008. http://www.unicef.org/infobycountry/zimbabwe\_40374.html
- Espanol, T., Caragol, I., Soler, P., & Hernandez, M. (2004). Pediatric HIV infection.

  [Electronic Version] *Iran J Allergy Asthma Immunol*, 3(4), 159-163. Retrieved February 21, 2007.
- Examining the rollout of pediatric antiretroviral treatment in South Africa. (2007, May) [Electronic version]. *Population Briefs*, 13(1).
- Foster, G., Levine, C., & Williamson, J. (2006). A generation at risk: The global impact of HIV/AIDS on orphans and vulnerable children. New York: Cambridge University Press.
- Giving hope to children orphaned by AIDS. (2005, February 16). UNICEF. Retrieved January 21, 2008 from http://www.unicef.org/infobycountry/zimbabwe\_25180.html
- Hamra, M., Ross, M. W., Karuri, K., Orrs, M., & D'Aggostino, A. (2005, October). The relationship between expressed HIV/AIDS-related stigma and beliefs and knowledge about care and support of people living with AIDS in families caring

- for HIV-infected children in Kenya. [Electronic version]. *AIDS Care*, *17*(7), 911-922.
- Hyun, C. (2007, June 21). Childhood lost: Assistance for children orphaned by AIDS in Uganda. *UNICEF*. Retrieved January 21, 2008 from http://www.unicef.org/infobycountry/uganda\_40064.html
- Joint United Nations Programme on HIV/AIDS (UNAIDS). (2006). 2006 report on the global AIDS epidemic: Executive summary. Retrieved January 20, 2008 from http://www.unaids.org/en/KnowledgeCentre/HIVData/GlobalReport/Default.asp
- Joslin, D. (2002). *Invisible Caregivers: Older Adults Raising Children in the Wake of HIV/AIDS*. New York: Columbia University Press.
- Kawawe, S. M. (2006, November). Reclaiming civil society and the plight of AIDS orphaned children and elderly women caregivers in sub-Saharan Africa: a global human rights dilemma for international social workers. [Electronic version].

  Women in Welfare Education. 8, 64-77.
- Kim, O. (2004, June- August). AIDS orphans: When you die, how should I do this?. [Electronic version]. *UN Chronicle*, 41(2), 9.
- Lewis, S. M., Heitkemper, M. M., & Dirksen, S. R. (2004) *Medical-surgical nursing:*Assessment and management of clinical problems. (6<sup>th</sup> ed.). St. Louis: Mosby.
- Masci, D. (2000, October 13). Global AIDS crisis. *CQ Researcher*, *10*, 809-832.Retrieved February 21, 2007, from CQ Researcher Online,http://library.cqpress.com/cqresearcher/cqresrre2000101300.
- Mawela, M. P. B. (2007, April). Management of HIV-infected children. [Electronic version]. *CME: Your SA Journal of CPD*, 25(4), 128-131.

- McBean, A. (2006, May 12). Girl's football programme scores hit against HIV in Kenya.

  \*UNICEF\*. Retrieved January 21, 2008 from http://www.unicef.org/infobycountry/kenya\_33938.html
- O'Brien, J. (2005, November 9). Community group helps Kenyan orphans affected by HIV/AIDS. *UNICEF*. Retrieved January 21, 2008 from http://www.unicef.org/infobycountry/kenya\_29777.html
- Perez, F., Mukotekwa, T., Miller, A., Orne-Gliemann, J., Glenshaw, M., Chitsike, I., et al. (2004). Implementing a rural programme of prevention of mother-to-child transmission of HIV in Zimbabwe: first 18 months of experience. [Electronic version]. *Tropical Medicine & International Health*, 9 (7), 774–783.
- Reddi, A., Leeper, S. C., Grobler, A. C., Geddes, R., France, K. H., Dorse, G. L., et al. (2007, March 17). Preliminary outcomes of a paediatric highly active antiretroviral therapy cohort from KwaZulu-Natal, South Africa. [Electronic version]. *BMC Pediatrics*, 7(13), 13.
- Rita, T. (2007, May). Psychiatric aspects of HIV/AIDS in adolescents: HIV infection will increasingly be seen in adolescents as more infected children receive treatment.

  [Electronic version] *CME: Your SA Journal of CPD*, 25(5), 228-230.
- Schoub, B. D. (1999). AIDS & HIV in perspective: A guide to understanding the virus and its consequences. New York: Cambridge University Press.
- Singizi, T. (2007, November 6). Multiple community programmes simultaneously fight HIV/AIDS in Zimbabwe. *UNICEF*. Retrieved January 21, 2008 from http://www.unicef.org/infobycountry/zimbabwe\_41695.html

- Singizi, T. (2007, December 28). Zimbabwe's youth overcome bitter odds to fight AIDS.

  \*UNICEF\*. Retrieved January 21, 2008 from http://www.unicef.org/infobycountry/zimbabwe\_42301.html
- Slonim-Nevo, V., Mukuka, L. (2007, February 12). Child abuse and AIDS-related knowledge, attitudes and behavior among adolescents in Zambia. [Electronic version]. *Child Abuse and Negligence*.
- South Africa launches AIDS campaign at conference on vulnerable children. (2006, July 18). *UNICEF*. Retrieved January 21, 2008 from http://www.unicef.org/infobycountry/southafrica\_34984.html
- Special focus: AIDS in Africa—a tragedy of epic proportions. (2000). *AIDS: All men—make a difference!* American Association for World Health. Retrieved April 30, 2007, from http://www.thebody.com/content/world/art33071.html
- Spencer, D. C., Harman, C., Naicker, T., Gohre, S., Rollins, N., Labadarios, D., et al. (2007, June). Nutrition and HIV/AIDS: nutritional guidelines for HIV-infected adults and children in Southern Africa: meeting the needs. [Electronic version]. 

  Southern African Journal of HIV Medicine, 22(10).
- Taylor, K. (2002, December). Opening doors of hope to children with AIDS. [Electronic version]. *Student BMJ*, 467.
- Tenwek Hospital. (n.d.). *Tenwek community health and development: What we do*.

  Retrieved January 20, 2008 from http://www.tenwek.org/tchd/what.htm
- Thurow, R. (2003). In Africa, AIDS and famine go hand in hand. *CDC*. Retrieved April 30, 2007 from http://www.thebody.com/content/world/art28783.html

- Uganda launches Unite for Children Unite Against AIDS. (2005, November 29).

  UNICEF. Retrieved January 21, 2008 from

  http://www.unicef.org/infobycountry/uganda\_30263.html
- UNAIDS. (2006, May). Report on the global AIDS epidemic: Executive summary. Joint United Nations Programme on HIV/AIDS.
- United Nations International Children's Emergency Fund. (n.d.). *HIV/AIDS and children*.

  Retrieved February 5, 2008 from http://www.unicef.org/aids/index.php
- A Ugandan village rallies around children orphaned by AIDS. (2006). UNICEF.

  Retrieved January 21, 2008 from

  http://www.unicef.org/infobycountry/uganda\_29786.html
- Wiener, L. & Martin S. (2002). Acquired immune deficiency syndrome. *Child Development*. 4-7 New York: Macmillan Reference. Retrieved February 21, 2007, from Gale Virtual Reference Library.
- World Bank. (2002) Education and HIV/AIDS: A window of hope. Washington, DC: World
- Zimbabwe's HIV infection rate continues to fall. (2007, October 31). *UNICEF*. Retrieved January 21, 2008 from http://www.unicef.org/infobycountry/media\_41603.html
- Zimbabwe's forgotten children. (2005, March 17). UNICEF. Retrieved on January 21, 2008 from http://www.unicef.org/infobycountry/zimbabwe\_25622.html