Since its first discovery in the early 1980s, the mystery of the Human Immunodeficiency Virus (HIV) has continued to elude health care workers. While the standard of living has increased in developed nations with the advent of new medication, the treatment offered to patients in undeveloped countries is still primitive. In Guyana, a country of about 700,000 people, it is roughly estimated that 3% of the population has Acquire Immunodeficiency Syndrome (AIDS). However, many cases go unreported as a result of poor governmental statistics collection and lack of testing facilities. A large number of infections occur in the mining regions in the interior of Guyana where many of the miners are young men who engage in promiscuous engagements with local women. Furthermore, the prevalence of malaria in the interior of Guyana has lead to HIV-malaria, leading to a greater number of both malaria and HIV cases. Throughout the last 10 years, many Non-Governmental Organizations (NGOs) have been established throughout Guyana to offer educational workshops on prevention and counselling services. However, the lack of capital has been a major obstacle. While Guyana does receive developmental aid from developed countries, it is insufficient to substantially improve the AIDS epidemic under Guyana’s current health care delivery system.

Guyana: The AIDS Epidemic
From the great plagues of Europe to the Small Pox Pandemics of the modern era, disease and pestilence has never been far away. Throughout the ages, Medical practitioners have tried many different methods to combat illness and disease from animal magnetism to polypharmacy. In the modern era, it is no different as modern medicine continues to seek out new ways to promote healing. However, despite humanity’s best efforts, some diseases are still unconquerable, among these is AIDS.

Since its discovery in the early 1980s, the HIV virus has spread to every country of the world including Guyana in South America. Although Guyana is a relatively small country with a population of only about 700,000 people, it has the 2nd highest HIV prevalence rate in the Western Hemisphere after Haiti. An estimated 3% of the population currently suffers from AIDS, although the incidence rate may be higher as many cases go unreported.

Guyana: The Beginning
The first ten AIDS cases were identified in Guyana in 1987, all being homosexual males, followed by five females the next year. In the early years of the epidemic, ignorance of the disease led doctors and nurses at the Georgetown Public Hospital to abandon patients because of fears that they would contract the disease themselves. Pan-American Health Organization (PAHO) Programme Assistant Dereck Springer described the situation: “Nobody was responsible in terms of creating a safe environment, persons were left unattended, not recommended for medical care, nurses were reluctant to provide nursing care, and families abandoned their sick relatives. Even persons at home were isolated.”

Guyana: A Mining Nation
Mining represent 25% of Guyana’s gross national product (GNP) in the mid 1990s.1 The mining industry has had a profound effect on the people of Guyana. While most of the population lives along the coast, most of the mines are in the interior. As a result, many men leave their homes and families to work in the interior for long periods. This puts a serious strain on the families. Furthermore, the once tranquil villages of the interior have been transformed into supply depots catering to the needs of thousands of migrant miners. The government station of Kamarang is a small village in the interior. Since the early 1970s, this calm administrative centre with a religious mission has been transformed into a “tawdy tinsel town” of grog shops, brothels and discos.1 Many young Amerindian women have become prostitutes, promoting the spread of sexually transmitted diseases such as HIV. The HIV virus is not only spread among the Amerindian villages, but also to the rest of the country by men who return to their families after their work contract is done.

Center for Disease Control Study on HIV prevalence in a Gold Mining Camp
The high HIV prevalence rate in the interior of Guyana has been the subject of discussion of one study by Palmer et al. (2002) which focused on a mining camp 400km inland from the capital, Georgetown.2 The men at this camp worked 12 hours per day for 6-8 weeks before returning home for a 2 week break.

Of the 216 men between the ages of 18-35 at the labour camp, all but 4 men were tested for HIV. The HIV testing was done on site by Determine (Dainabot, Tokyo, Japan) rapid Immunochromatographic test for the qualitative detection of HIV strains 1 and 2. In previous fieldwork, this test was reported to yield 100% sensitivity and specificity. In any case, a confirmation HIV test was also done by enzyme-linked immunosorbent assay
(ELISA) with western blot (Abbott, Abbott Park, Illinois) on all sera. The study reported that 6.5% of the men tested positive for HIV and both the field test and confirmatory test were 100% in agreement of these findings.2 This high prevalence was troubling because it created a reservoir for the HIV virus. This situation was exacerbated by the fact that the health care system in the interior communities was poorly equipped to deal the disease.

Malaria - HIV Co-infection
Since 1986, malaria prevalence has also risen in Guyana and has become a serious health problem. There are over 30 000 clinical cases of malaria every year in the interior.2 P. Falciparum, the more dangerous species of the parasite has re-established itself in areas from which it had been previously eradicated. It is thought that the extensive mining and natural resources exploration coupled with poor health care services in the interior has led to this resurgence.7 Furthermore, in some areas, P. Falciparum has developed a resistance to chloroquine and fansidar, two common anti-malarial medications. This is especially dangerous since the victim can die within 24 hours of symptomatic high fever and chills. Remote villages in the interior do not have easy access to health centres and it often takes hours just to get to the nearest health centre, which are often not well equipped with medications.

High malaria prevalence in areas where HIV is present is especially alarming. Immune T-cells and B-cells function as the body’s defence system against infectious diseases such as malaria. However, these lines of defences are weakened during the first stages of HIV infection rendering the body vulnerable to infections such as malaria. Conversely, malaria could also exacerbate HIV infections because the immune system could be overwhelmed dealing with multiple infections.

In a study done by French and Gilks (2000), it was shown that malaria infections were more frequent individuals with compromised immune systems. The researchers looked at three different categories of individuals according to their CD4 T-cell counts. The groups were as follows: 1) >500 2) 200-499 3) <200. French and Gilks (2000) found that 4.5% of those with CD4 T-cells >500 were infected with malaria compared with 7.3% with CD4 200-499 and 11.5% with CD4<200. Thus, an increase in malaria infection is observed in HIV infected adults, suggesting an important correlation between malaria and HIV.4

During the early stages of the AIDS epidemic, it can be argued that non-governmental organizations played as great if not a greater role in battling the disease than governmental departments. Non-governmental organization sprang up in all regions of the country offering a variety of services from counselling to education. In the year 2000, many of the non-governmental organizations decided to combine their resources and began a national crusade against HIV/AIDS and sexually transmitted infections (STI). As a result, the Guyana HIV/AIDS/STI Youth Project was born. This 5-year program is funded by the United States Agency for International Development (USAID) and will work to educate people about the disease, as well as collecting data to assess the knowledge Guyanese have about the disease and their perceptions of the disease. This project also works to interview focus groups such as sports clubs to understand their view of the disease. Furthermore, the project also interviews prominent members of communities to understand the specific needs of communities as well as draw on their leadership capacity to motivate the community to wage the war against HIV/AIDS and sexually transmitted infections.

The organizations that make up the Guyana HIV/AIDS/STI Youth Project are all reputable organizations with a history of their own. Each of them is very active in their community in their field of work whether it is counselling, education or medical care.

One of the more prominent NGO’s is Youth Challenge Guyana (YCG) which is a part of the Youth Challenge International alliance that includes partners in Canada, Australia, and Costa Rica. Traditional, this organization has worked on infrastructure development and health promotion issues with a number of local and international volunteers. Lately, Youth Challenge Guyana has transformed itself to move away from infrastructure projects and focuses on three streams: governance, women’s issues and HIV/AIDS work. The HIV/AIDS stream of work will be YCG’s contribution to the youth project. International and local volunteers will travel into different regions of Guyana to collect statistical data on HIV/AIDS as well as provide educational workshops. Although the NGO’s have the good intentions of helping to ease the suffering of AIDS, the lack of resources has truly hampered the efforts. In most countries, NGOs’ purpose is to support and complement the services offered by the government. However, in the case of Guyana, the poor state of the country’s health care infrastructure has made many NGO’s primary care providers rather supportive care providers. Although these organizations have a depth of experience in aid work, they simply do not have the manpower or financial resources to provide adequate care to everybody. To the best of their abilities, the non-governmental organizations can only offer indirect methods such as counselling and workshops in the hope that people will learn to protect themselves from contracting HIV. As the HIV incidence rate increases, the NGOs can only watch helplessly, hoping that the international community will contribute aid. In the end, only proper medical services and pharmaceuticals can slow down this epidemic.

References
