

**Implementation and Evaluation of a Sports-Based HIV/AIDS Prevention
Education Program for Preadolescents in St. Lucia**

A Thesis Presented

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Abstract

Research reported in this thesis analyzed the appropriateness of a HIV/AIDS education campaign in St. Lucia called *Football for Lives* (FfL) modeled after the very successful *Grassroot Soccer* (GRS) program. GRS has been implemented in other countries throughout the world. The GRS approach uses the power and popularity of soccer to break down cultural barriers, educate young people, and bring communities together to address the issue of HIV/AIDS. GRS employs a unique, activities-based curriculum to prepare trainers and peer educators to reach out to their communities and educate the population at large about how to avoid HIV infection. The curriculum developed for the GRS education program is based on the principles of social learning theory developed by Albert Bandura, a noted behavioral psychologist. The Grassroot Soccer Program is a series of challenging activities, often described as games by participants, that allow youth to explore sensitive issues relating to HIV/AIDS. Professional soccer players, teachers, peer educators and other role models are trained as Grassroot Soccer Coaches to deliver this games based curriculum to youth who range in age from 10 to 18 years old. The Grassroot Soccer Curriculum creates a fun, friendly and safe environment in which youth can share their feelings and beliefs about HIV/AIDS, increase their knowledge, and develop healthy attitudes and behaviours concerning HIV/AIDS.

Starting in the fall of 2007 students from the University of Vermont, New York University, and the University of Illinois have implemented FfL in the fifth and sixth grades of the Mon Repos Combine and Patience Primary Schools, Mon Repos village, St. Lucia. Qualitative and quantitative assessments were conducted to determine the program effectiveness, including in the summer of 2008, in which pre and posttests were administered to program participants to assess change in HIV/AIDS related knowledge. In January 2009, a five-month follow up was administered to summer 2008 program participants.

The qualitative assessment examined the effectiveness of the training of University of Vermont students trained to deliver the GRS curriculum. The quantitative assessment measured change in students knowledge over time defined by the survey instrument. It was found that students' knowledge did increase as a result of the FfL program. The qualitative assessment confirmed the programs theoretical basis and that it was culturally appropriate in St. Lucia. However, it was found that the FfL program needs to be more effective in sustaining the program over time. In addition, it is suggested that to get a true understanding of the FfL program, a longitudinal study of program participants would be necessary to measure health outcomes.

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List of Acronyms

- AAF: Aids Action Foundation
- AIDS: Acquired Immunodeficiency Syndrome
- ARV: Antiretroviral
- CAREC: Caribbean Epidemiology Centre
- CARICOM: Caribbean Community and Common Market
- CRN+: The Caribbean Regional Network of People Living with HIV/AIDS
- ECC: Eastern Caribbean Currency
- ECCB: Eastern Caribbean Central Bank
- FfL: Football for Lives
- FIFA: Fédération Internationale de Football Association
- FPV: Futbol Para la Vida
- GRS: Grassroot Soccer
- HIV: Human Immunodeficiency Virus
- MoH: Ministry of Health
- NACC: National Aids Coordinating Council
- NGO: Non-Governmental Organization
- OECS: Organization of Eastern Caribbean States
- PAHO: Pan American Health Organization
- PCV: Peace Corps Volunteer
- PLWHA: People Living with HIV/AIDS
- SLP: Saint Lucia Labor Party

STI: Sexually Transmitted Infection

UNGASS: United Nations Assembly Special Session

UNAIDS: The Joint United Nations Programme on HIV/AIDS

UNIFEM: United Nations Development Fund for Women

UWI: University of West Indies

UWP: United Workers Party

WHO: World Health Organization

Chapter 1. Introduction

In 2000, the United Nations Security Council stated, “HIV/AIDS has manifested itself as not only a challenge to sustainable development but has now become a threat to national sovereignty and global security” (The World Bank, 2000). The impact of AIDS has only intensified since then. AIDS kills approximately 1,400 youth every single day, meaning every minute of every day a child is infected with HIV (Griffiths, 2005: 3).

With the limited application of testing and insufficient antiretroviral drugs (ARV) to treat children effectively, Griffiths (2005) continues, prevention is the next best option. He clearly indicates a preference for prevention through education, stressing a host of educational techniques (Griffiths, 2005). Active sports, especially soccer, as a vehicle accompanied by an educational message are being used effectively to target youth in an all out effort to increase HIV/AIDS related knowledge and, thereby help stem the spread of the disease.

Soccer is the most popular sport in the world; a sport that has enjoyed great and growing popularity. Not coincidentally, in the process, soccer has become a powerful force as well as a big money maker. However, now the global community has come to understand how to use soccer for social development as well as promoting nationalism and making money (Grassroots Soccer, 2007). Soccer is also seen as a possible “life-time” sport, an activity that fit elders can join in with their offspring, neighbors and, in a relaxed mode, with players of varying skills. The rules are basic and, with minor variations are acceptable from villages in northern New England to the highlands of Peru. New perspectives on the sport see it as a “media” for teaching about social interaction,

teamwork, proper nutrition, good habits and, of course, good health. The impact of HIV/AIDS upon social cohesion and economic development has augmented efforts among health officials, educators, community leaders and the larger soccer community (elaborated below), to mobilize appropriate aspects of civil society in the global fight against HIV/AIDS (United Nations, 2003).

The popularity of soccer makes it an ideal vehicle to bring people and communities together to fight the HIV/AIDS epidemic. The ability of soccer to foster communication and to increase social mobilization makes it highly effective to raise public awareness about HIV/AIDS (United Nations, 2003). Soccer has the capacity to mobilize its own “family” in this battle (its family may be seen to include players of both genders, of all ages, in all nations, their families and the people of both the place and interest based communities who support the game). In this mobilization, activists have come to recognize the potential power “of the larger soccer community.” Soccer teams and soccer matches, no matter the size, bring people and communities together. A soccer match is an activity which can provide an excellent “event” for public information campaigns and general mobilization regarding HIV/AIDS prevention, protection, and treatment. Such “events” can reach a large population of individuals of varying locations, backgrounds and ages (United Nations, 2003, among many other formal observers).

NGOs have become critical players in efforts to educate youth about HIV/AIDS (Griffiths, 2005). Today a myriad of NGOs provide HIV/AIDS related prevention measures to many different individuals throughout the world. Activities, to name just a

few, include distributing antiretroviral drugs (ARVs), establishing HIV testing centers, distributing information, and the implementation of HIV/AIDS education programs.

NGOs are praised in their effectiveness in HIV/AIDS prevention because they are able to devise and implement programs faster than many national governments (Griffiths, 2005).

One NGO that uses the sport of soccer in this way has been at the forefront of HIV/AIDS prevention in sub-Saharan Africa. This NGO is known as Grassroot Soccer (GRS) and it uses the power and popularity of soccer in the fight against HIV/AIDS by combining soccer with an innovative series of education experiences (Grassroot Soccer, 2007). GRS also uses soccer to connect with a wide network of school, government, and non-government organizations to educate and train individuals at these levels about HIV/AIDS related knowledge. A constant message of the program is how to live a life free of HIV (Grassroot Soccer, 2007). GRS operates formally in just three countries, though, as this thesis illustrates, GRS principles have influenced a host of programs in the northeast United States as well as in a half dozen other developing countries.

Specifically in Africa; South Africa, Zimbabwe, and Zambia have enjoyed the formal presence of GRS over the last five years. Moreover, there are many different implementing partners (all, in one way or another, representative of the unique capacity of small non-profit, NGOs) that run various GRS camps and activities throughout Africa, Central America, and the Caribbean.

GRS is continually building upon an expanding network of local organizations within the countries it works in to deliver its curriculum and program (Grassroot Soccer, 2007). GRS realizes that without local on-the-ground knowledge and very personal

relationships (fostering local organization) that its impact would be limited. GRS consistently evaluates and improves their program. Typically, GRS carefully uses evaluations from third-party evaluators and evaluations done by GRS implementing partners. The results of these evaluations allow GRS to be able to consistently improve the value and quality of their program (Grassroot Soccer, 2007). Moreover, as the program “network” expands awareness of the importance of appropriate adaptation of activities adjust to the nuance and more obvious cultural differences emerging from one region to the next. In this manner, the program adapts, modifies and elaborates in tune with local experience.

GRS is continually finding ways to use the power of soccer to unite people around the issue of HIV/AIDS. Their curriculum uses soccer to start discussion points about HIV/AIDS related knowledge and uses professional soccer players as role models to attract youth and emphasize their message (Grassroot Soccer, 2007). GRS has a very informative and interactive website that links American youth players with their counterpart African youth soccer players called GRS United and in addition, GRS has been selected to run FIFA’s first Football for Hope Center in Cape Town, South Africa (Grassroot Soccer, 2007). GRS will display the power of what sports can do for development especially HIV/AIDS education at the 2010 World Cup in South Africa (Grassroot Soccer, 2007).

This thesis is a report reflecting experience with a GRS inspired project called Football for Lives (FfL), which the author started in 2007 in St. Lucia. In implementing this project the opportunity to work along side host country nationals, families and youth

from another country, GRS staff, and students and faculty of the University of Vermont has provided great insight into program development.

The FfL project grew out of a service learning class at the University of Vermont entitled *Sustainable Development in Island Communities*. Service learning courses offer students to be able to apply their classroom knowledge to real world working environments. Students are able to design and implement projects alongside local community members and in the process foster a sense of community partnership. In addition, students have the opportunity to reflect upon their work in a service learning class, allowing them to learn a great deal about themselves by working through the project.

This research focused on gathering baseline data defined by the survey instrument administered to program participants at many different levels of activity. In addition, a qualitative assessment was conducted during training of University of Vermont student coaches (see text below for discussion of roles engaged in this program) that were involved with the FfL program. This allowed for observations regarding the curriculum and training aspect of the program as well as to obtain input from different perspectives regarding the training and curriculum used for the FfL project. It is important to note that though the results of this study gives baseline knowledge and results regarding the FfL program, this is not the definitive study on FfL program effectiveness.

In Chapter 2, the Grassroot Soccer model in which this project was modeled after is further explained. An effort to illuminate a theoretical legacy for the program as well

as a brief analysis of social learning theory, the use of “roles” models in social interaction, experiential education, and service learning are explored here.

Chapter 3 provides a description of the setting(s) where this research takes place and has a brief overview of St. Lucia followed by an outlining of the HIV/AIDS epidemic in the Caribbean and, more specifically in St. Lucia. We call attention to some of the policy responses to this phenomena, including developments in HIV/AIDS education in the Caribbean and St. Lucia. Chapter 4 describes qualitative and quantitative studies implemented for the field research portion of this study and presents specific results obtained. Chapter 5 provides a discussion about the project and the more general conclusions from the study. A few tentative suggestions for the programs’ future are made.

Chapter 2. Grassroot Soccer Overview

GRS is a non-profit organization formed to help combat the spread of HIV/AIDS using the power of soccer to educate. GRS was founded by Dr. Thomas Clark, who, after spending part of his childhood in Zimbabwe, pursued participation in both collegiate and professional soccer. At one point, he played for the Bulawayo Highlanders (a professional soccer team in Zimbabwe), and developed a deep love for the country and its people. Clark was alarmed by the social taboos and barriers surrounding HIV/AIDS and the quickly growing HIV/AIDS infection rates (Grassroot Soccer, 2007).

Clark returned to the States and attended medical school while simultaneously developing the programmatic basis of GRS. With the help of educational specialists, medical and technical advisors, Clark and some of his former teammates (Kirk Friedrich, Ethan Zohn and Methembe Ndlovu) have collectively created a unique curriculum that has since become the foundation of the GRS program. With a small planning grant, GRS was able to launch its first project in January of 2003 in Bulawayo, Zimbabwe (Grassroot Soccer, 2007).

The objectives of GRS are to break down the social barriers and taboos surrounding HIV/AIDS by providing youth with the knowledge, skills and support to live HIV free. The founders of GRS have designed a unique curriculum using soccer as the main tool to get people together. An emphasis upon the importance of peer involvement characterizes the program as well (e.g. teaching participants how to teach others has been a persistent theme throughout the development of the program). Soccer was chosen because it is an integral part of life in many nations and yet is played at the community

level (Grassroot Soccer, 2007). The GRS curriculum consists of carefully designed and field-tested games and activities that have HIV/AIDS tailored messages (see Appendix C for examples of four GRS activities).

Although GRS originated out of Africa (and in particular in Zimbabwe) there are now many programs up and running throughout countries in Africa and around the world (Grassroot Soccer, 2007). GRS administrative offices are located in the small town of Norwich, Vermont, a very modest headquarters. This is exactly the model that GRS uses abroad: GRS is a small, decentralized NGO that is very flexible, innovative, and encourages experimentation and imitation among all the individuals working alongside the program.

Grassroot Soccer and Social Learning Theory

To understand the GRS approach to educating youth on HIV/AIDS related knowledge and issues, one needs to examine the theoretical framework influencing the GRS curriculum development. It has been argued by educators and psychologists that building an effective education program guided by a theoretical framework contributes to our understanding of program strengths and success as well as weaknesses and setbacks. In a nutshell, the articulation of a framework augments program evaluation, testing impacts against objectives. The GRS curriculum and programs rely heavily on role models and peer education as “messengers” affecting changes in youths’ behavior so they might live healthy and HIV/AIDS free lives.

In the development of its curriculum, GRS has relied heavily on the social learning theory proposed by Albert Bandura, an internationally renowned behavioral psychologist. The fact that GRS draws heavily upon Bandura's work is acknowledged in Grassroots Soccer, 2009 website (see Grassroots Soccer, 2007). According to this theory, individuals will change behavior by observing other people (including, possibly, role models) who practice these new (and appropriate) behaviors. It is assumed that participants (learners) will recognize the consequences of new behaviors and by imitating new behaviors modeled by peers or role models will rationally change their own behavior. In addition, Bandura argues that "most human behavior is learned observationally through modeling: from observing others, one forms an idea of how new behaviors are performed, and on later occasions this coded information serves as a guide for action (Bandura, 1977: 22)." Bandura, a faculty member at Stanford University, employs cognitive psychology because he focuses on self-regulatory and motivation factors that add to an individuals' behavior, not just environmental factors (Moore, 1999).

Social learning theory stresses the prominent roles played by symbolic and self-regulatory processes in psychological functioning (Bandura, 1977). In Bandura's book *Social Learning Theory*, he suggests that people are not simply reactors to external influences; rather, they select, transform, and organize the stimuli, in this case HIV/AIDS education (Bandura, 1977). In *Evaluating an Adolescent-Target HIV Prevention Program in Haitian Migrant Communities in the Dominican Republic*, Zak Kaufman (2008), a Dartmouth College student shows that GRS uses both professional soccer players and other role models in delivering the GRS games and activities. The use of

these critical role models represents a major manifestation of Bandura's work and is a major premise in the social learning theory that role models are highly effective in generating self efficacy (belief in our ability to succeed in specific situations) in others, which in turn is key to behavior change (Bandura, 1994; Kaufman, 2008). GRS outlines three main premises of their program. These premises take into account aspects of social learning theory.

1. Kids learn best from those they respect. Using local professional soccer players is an easy way to get kids' attention and help them build self-confidence
2. It takes a village. Behavior change can only be successful if the larger community supports it.
3. Learning is an active process. Young people learn by doing. It is not enough to hear or memorize information. True learning begins when we apply the lessons we have learned.

As suggested above, the premise that using role models (a cause) to inspire youth to take on HIV/AIDS preventative behaviors (an outcome) is central to the GRS model.

In 2004, the Children's Health Council completed an evaluation of the GRS pilot project in Zimbabwe prepared by Luba Botcheva and Lynne Huffman. Botcheva and Huffman (2004) argue that there is great merit in using these professional soccer players to deliver the GRS curriculum to youth as well as educating the peer educators. Many individuals in the community look up to these star players, especially if they are from the community in which they are teaching. Not only youth, but teachers, parents, coaches, and other community members will try to imitate the behavior modeled by these star soccer players (Bandura, 1994). The star soccer players, if they are present in their

community when the GRS program is being implemented are usually free during the day. Thus, they are able to work in schools and community organizations when the children are on recess, during physical education, or when the children are free for the day (Botcheva & Huffman, 2004; Kaufman, 2008).

In an expanded model, the introduction of non-professional role models/peer educators, professional soccer players/athletes, respected community members, PCVs, Sports Coaches, and in the case of FfL, student coaches from UVM all have been used at various stages in the GRS program implementation. (Botcheva & Huffman, 2004; Kaufman, 2008). It is important to note, as Bandura states, “To increase the impact of modeling, the characteristics of models such as their age, sex, and status, the type of problems with which they cope, and the situation in which they apply their skills, should be made to appear similar to the peoples own circumstances” (Bandura,1994: 35).

As the last few paragraphs indicate, a number of social scientists have wrestled with the implications of experiential education and the interception between message and student of role modeling. So too, a number of empirical studies have been conducted measuring the effect of curriculum and the impact of participation. Among the scholars of GRS this type of empirical research has focused upon program evaluation and over the years, there have been a variety of evaluations completed treating GRS program implementation throughout the world. As indicated earlier, these evaluations are used to continually improve the GRS curriculum and program and serve as a guide to where the GRS programs fall short. Please note, that program transparency through built-in evaluation is an inherent part of the program. Through constant evaluation, curriculum

has been improved, as well as made adaptable to different situations and, especially, different cultures. In the next section, a number of these evaluations with implications for the fieldwork reported in this thesis are reviewed.

Prior Grassroot Soccer Evaluations

In 2004, The Children's Health Council conducted an evaluation of the GRS education program in Bulawayo, Zimbabwe. This GRS program was implemented in nine schools in Bulawayo targeting seventh grade students. These were students who were categorized as being "at risk," due to exposure to the HIV epidemic in their community (Botcheva and Huffman, 2004). Data were collected using a specifically developed survey administered to intervention and control groups selected from four of the participating schools (N=314). The objectives of this evaluation were to examine the impact of the GRS program on participants' knowledge of HIV/AIDS related knowledge and to examine if these changes in HIV/AIDS related knowledge were sustained over a five-month period. The study also sought to determine teacher and student opinions regarding the GRS program as well as their opinions of how the GRS program could be improved (Botcheva and Huffman, 2004). The survey instrument used in the study was the identical in the pre and post-test, except that in the post-test, questions were added addressing specific aspects of the training that the students enjoyed or would like to be changed. The five-month follow up survey was also the same as the pretest with questions added about whether students remembered what they had learned from the GRS program they completed. In addition, they were questioned as to whether they had

used this knowledge since graduating from the GRS program (Botcheva and Huffman, 2004).

A review of the findings in this study indicates that the GRS program improves students' HIV/AIDS related knowledge, that these positive changes were (for the most part) sustained over a five-month period, and that students were satisfied with the program. It was found that students intend to use and actually used knowledge learned after five months of completing the GRS program. The teachers interviewed for the study were very satisfied with the program, but indicated that they would like to see more ways to sustain the results and be more involved in the educational process (Botcheva and Huffman, 2004).

In 2005, Jason Griffiths, a Masters candidate at Stanford University completed a monograph entitled, "*HIV/AIDS Intervention Programs for Youth in Africa: The Role of Grassroot Soccer*" (Griffiths, 2005). In this monograph Griffiths identified issues related to implementing school-based HIV/AIDS programs and used GRS as a case study to illustrate the role NGOs play in current African HIV/AIDS prevention programs for children (Griffiths, 2007). Griffiths conducted his research using interviews with individuals involved in GRS preparing himself with an exhaustive literature review regarding HIV/AIDS education and the role played by NGOs. Griffiths concluded that if GRS is going to be a significant player in improving HIV/AIDS education programs they will need to work together with governments and schools as well as move the focus from soccer to find other ways of including a greater number of youth in these HIV/AIDS education programs (Griffiths, 2005).

In 2006, Dr. Tommy Clark used the data set from the Children's Health Councils assessment and suggested that the GRS program participants might diffuse HIV/AIDS related knowledge to their peers that did not participate in a GRS camp. (Clark, Friedrich, and, Ndlovu, 2006; Kaufman, 2008). It was found that the control group in the 2004 study had "caught up" to the intervention group in HIV/AIDS related knowledge. This finding was established in the five month follow up survey. Moreover, approximately one quarter of the GRS program participants stated that they had taught what they had learned to peers (Clark, et al., 2006; Kaufman; 2008).

In 2006 Jacob Bor completed a GRS study entitled *Grassroot Soccer and Diffusion of HIV Knowledge: Do Participants Talk to Others About HIV/AIDS?* Bor surveyed 342 GRS participants at three different middle schools in Botswana to investigate whether these GRS participants talk to non-participants about what they learned from the GRS program regarding HIV/AIDS related knowledge (Bor, 2006; Kaufman, 2008). Bor found that on average a GRS graduate educates about 5.7 [4.4-6.9] of their peers about HIV/AIDS after their participation in the GRS program (Bor, 2006; Kaufman, 2008).

In 2006, GRS added a resiliency component to their curriculum in South Africa and Zambia to educate youth on how to bounce back from crises and/or trauma in their own lives (Peacock-Villada, 2006; Kaufman, 2008). Resiliency in this regard refers to an individuals' ability to bounce back from crisis, trauma, sickness, and other setbacks in their lives. An evaluation of this new component was carried out to assess if using a sport-based model is appropriate to educate youth between the ages 10-18 about

resiliency (Peacock-Villada, 2006). The evaluation in Zambia used pre and post-intervention surveys, group discussions with trainers, demographics of each site (location, description of site, distance from city center, number of students etc.), and interviews with some of the program participants. In South Africa, the evaluation assessed information gathered at five weekly group discussion and reflection sessions with trainers, trainer assessments and a curriculum and program feedback form filled by trainers (Peacock-Villada, 2006).

It was found that the new resiliency component of the GRS program significantly improved participants' resiliency related knowledge such as standing up to peer pressure, willingness to seek help, decision making behavior, and knowledge of how to support people living with HIV/AIDS (PLWHA) (Peacock-Villada, 2006; Kaufman, 2008). In addition, the results of this study showed that participating students enjoyed the resiliency component of the GRS curriculum and found the messages to be relevant to their own lives. This finding helped create the support, meaning that resiliency components should be utilized in future GRS programs (Peacock-Villada, 2006).

In 2007, two evaluations were completed by MercyCorps in Liberia ("Yes to Soccer") and in Sudan ("Sports for Peace and Life") (Ahlgren, 2007; Kaufman, 2008). These evaluations used pre and post-test surveys consisting of 16 questions that were administered to 671 participants between the two countries (Ahlgren, 2007; Kaufman, 2008). It was found that both programs increased participants' HIV/AIDS related knowledge. In Sudan, the overall increase in knowledge was from 64 percent to 80 percent and in Liberia the increase was from 58 percent to 85 percent (Ahlgren, 2007;

Kaufman, 2008). Kaufman (2008), points out that these evaluations showed that with proper project implementation, partnering organizations of GRS such as FfL can expect outcomes similar to those GRS has achieved in South Africa, Zambia, and Zimbabwe (Kaufman, 2008).

In 2008, Zak Kaufman of Dartmouth University worked with GRS and Futbol Para la Vida (FPV) to develop a monitoring and evaluation program for the FPV program in the Dominican Republic. In this evaluation, Kaufman used interviews, pre and post-test surveys, and a follow up survey to measure the effectiveness of the FPV program (Kaufman, 2008). Kaufman found results that were similar to the previous studies as well. Most critically for the report here, it was found that the GRS curriculum can be effectively incorporated into a Caribbean setting (Kaufman, 2008).

This chapter has discussed the GRS model the FfL program is based upon. The theoretical framework in which the curriculum was developed was discussed. Prior evaluations of GRS programs throughout the world were reviewed. In the following chapter, the setting in which the FfL project took place is discussed beginning with a brief background on St. Lucia as a country, and then exploring HIV/AIDS in the Caribbean and in St. Lucia. The chapter concludes with a discussion regarding HIV/AIDS education in the Caribbean and in St. Lucia.

Chapter 3. Research Setting

Introduction to St. Lucia

St. Lucia is the second largest of the Leeward and Windward Islands situated in the eastern Caribbean (Momsen, 1996). The island is approximately fourteen miles wide and twenty-seven miles long, has a total land area of 238 square miles, and a total population of approximately 170,600 (Department of State, 2007 CIA, 2007).

St. Lucia lies between two islands, the British Commonwealth of St. Vincent and the French Department of Martinique. Due to St. Lucia's proximity to these nearby islands, its history has been shaped by ongoing disputes and efforts by colonial powers to assert themselves and establish primacy in the area. A critical period stretched from approximately 1600 until 1814, when the British possession was finally confirmed. During the two hundred years of debate, the island changed hands fourteen times between the French and British. A distinctive Anglo-French culture persists until today.

Politics and Government:

Today, St. Lucia is a parliamentary democracy where the head of state is Queen Elizabeth II. She is represented by a Governor General who she appoints. The Governor General exercises a role in ceremonial functions. The actual power in St. Lucia is held by the Prime Minister and a cabinet, which represent the majority party in Parliament (Department of State, 2007). Parliament in St. Lucia is bicameral and is composed of a seventeen member House of Assembly where members are elected for 5-year terms and an 11-member senate, whose members (six) are nominated by the Prime Minister, by the

Leader of the opposition (three), and by the Governor General (two) for 5 year terms unless parliament is dissolved (Department of State, 2007; Foreign and Commonwealth Office, 2009). Like many parliamentary democracies, parliament may be dissolved at any point during its five-year term, either at the Governor-General's discretion (if the house passes a vote of no-confidence in the government), or at the request of the prime minister in order to take St. Lucia into early elections (Department of State, 2007).

St. Lucia has an independent judiciary made up of district courts and a high court (Department of State, 2007). This system is based on English common law. Both common law and statute law govern St. Lucia where the lowest court is the district court. Above the lowest court is the Court of Summary Jurisdiction; above that court is the Eastern Caribbean Supreme Court, with the top judicial court being the Privy Council of the United Kingdom (Encyclopedia of the Nations, 2009).

Economy:

The economy in contemporary St. Lucia is driven by two major sectors: tourism and agriculture, especially banana production for export. Tourism was slow in coming to St. Lucia, but once the St. Lucian government converted an old U.S. military air base into the Hewanorra International Airport in the early 1990s, tourism emerged accompanied by noteworthy volume (CIA 2007; Momsen, 1996). Today, tourism accounts for forty eight percent of St. Lucia's total GDP with more than 700,000 arrivals in 2005 alone (CIA, 2007).

St. Lucia uses the Eastern Caribbean Dollar (EC\$) as its main currency, although one can easily use U.S. Dollars at most places on the island as well. The EC\$ is a regional currency that is shared among members of the Eastern Caribbean Currency Union (ECC) (Department of State, 2007). The Eastern Caribbean Central Bank (ECCB) is the bank that issues the EC\$, supervises and regulates all commercial and banking activities in member countries. Moreover the EECB manages monetary policy and has kept the EC\$ pegged at EC\$2.7=U.S. \$1 (Department of State, 2007). St. Lucia is the headquarters of the Organization of Eastern Caribbean States (OECS) as well as serving as a member of the Community and Common Market of Caribbean States (CARICOM) (Department of State, 2007).

Health and Health Services in St. Lucia

As mentioned above, St. Lucia has a population of approximately 170,600 individuals where females account for 51% and males 49% of the population (Pan American Health Organization, 2007). The county's population is relatively young with 28.8% of the inhabitants being under fifteen years of age. The elderly account for just 7.1% of the population (Pan American Health Organization, 2007). The life expectancy in St. Lucia for men is 72 years of age while female life expectancy is 78 (World Health Organization, 2009). The fertility rate decreased from 2.1 children per women in 2001 to 1.7 in 2004. The number of births in 2004 was the lowest in recorded history, a trend that is expected to continue as women rely on prescribed contraceptives and other methods of birth control (Pan American Health Organization, 2007). The death rate was

6.9 per 1,000 individuals in 2004, and the infant mortality rate of children under 1 year of age was recorded at 19.4 per 1,000 births in 2004 (Pan American Health Organization, 2007). This demographic profile suggests that St. Lucia is becoming more developed, as birth rates and infant mortality rates decline. In addition, the fact that more and more women are feeling less stigmatized about purchasing and using contraceptives could cause a decrease in STI and HIV infection rates.

The average family household size in St. Lucia is 3.4 persons. In rural areas, the average household size is 3.5 persons and urban areas have an average household size of 3.3 persons (Pan American Health Organization, 2007). Female-headed households represent 43% of all households in St. Lucia. It has been observed that these female-headed households are less likely to own assets such as housing, vehicles, and land. In addition, half of all females that headed households were unemployed (Pan American Health Organization, 2007). However, field observation supports the interpretation that these women are involved in the country's informal markets (farming, making and selling crafts, etc.) though counted officially as 'unemployed'.

Women in St. Lucia are typically regarded as the head of the household. This means they clean, cook, look after their children, and take care of many other chores that need to be done. The men typically are the wage earners. This allows them to own various assets that women might not be able to own. It is also not uncommon to see a male that has his children born from different mothers. This is especially true in the Rastafarian culture, where a male typically would father many children from two to three different women. This is a very risky behavior pattern with respect to HIV transmission.

St. Lucia has three medical institutions that provide specialized and general medical services. Victoria hospital is located in Castries and is managed by the Ministry of Health. St. Jude's Hospital is located in Vieux Fort and receives its funding from an annual subvention from the Government and private donors and doctors. The third is Tapion Hospital in Castries, (a privately owned facility). (Information on hospitals and their location from the Pan American Health Organization, 2007). Primary health services in St. Lucia are provided at thirty-four health centers, two district hospitals and a polyclinic. These health facilities provide pharmaceutical, medical, and child health services (Pan American Health Organization, 2007).

The Ministry of Health strives to provide the maximum quality of life for the entire population of St. Lucia (Pan American Health Organization, 2007). The Ministry has two main divisions; an administrative division that is headed by a permanent secretary and a technical arm headed by the chief medical officer (Pan American Health Organization, 2007). The Ministry provides an administrative home for both primary and secondary health care services in the public sector (Pan American Health Organization, 2007).

The Bureau of Health Education, which is located in the Ministry of Education, oversees health education and promotion in St. Lucia and focuses on reduction and control of non-communicable diseases (Pan American Health Organization, 2007). This bureau is also responsible for organizing community sensitization meetings to help disseminate medical information and to foster community involvement in providing health services at the local

community level (Pan American Health Organization, 2007). In this capacity, this agency is a key contact area for our planned field program.

As in other developing countries (and many of the “developed” ones), not all individuals are able to access or afford these clinics, and many medical problems go untreated in these population groups. This is especially worrying with respect to HIV. These individuals who are not diagnosed or who can’t receive annual medical check ups will be most susceptible to HIV infection. It is of utmost importance that the Government of St. Lucia continues to scale up their health sector to reach as many individuals as possible.

HIV/AIDS in the Caribbean

The Caribbean region is an extraordinarily diverse area of the globe. The Caribbean’s English speaking countries, which share the benefits of similar dependence on tourism and trade, have an approximate population of six million people. However, when one adds in the population of the Caribbean’s Spanish, French, and Dutch countries, the region’s population soars to 36 million (Voelker, 2001).

The Caribbean region has an estimated 2% prevalence of HIV/AIDS among adults, second only to that of sub-Saharan Africa, with 8%. (The quality of these data will be discussed below.) The joint United Nations Program on AIDS (UNAIDS) has reported that of the 12 countries in the Americas with the highest HIV prevalence, nine are in the Caribbean region (Voelker, 2001). Official estimates currently indicate that 360,000 people living in the Caribbean are infected with HIV/AIDS. However due to inadequate monitoring and widespread underreporting of the epidemic it is thought that

more than half a million people are infected with HIV (The World Bank, 2000).

Although this data was generated in 2000, HIV infections have been increasing over the years. Currently in the English speaking Caribbean, AIDS is the largest cause of death among young men aged 15-44 (The World Bank, 2000).

Today, countries in the Caribbean region are facing common problems. Resources to deal with the HIV/AIDS epidemic are limited (Avert, 2008). In 2004, the Caribbean received \$13 million dollars from the World Bank to support ongoing HIV/AIDS programs. From these funds, St. Lucia was to have received US \$6.4 million to reduce infections, provide treatment for people living with HIV/AIDS, and to strengthen capacity building efforts to combat this epidemic (BBC Caribbean, 2004). Complimenting these funds, all government ministries were expected to implement HIV/AIDS programs for the population groups they are responsible for (BBC Caribbean, 2004).

In 2001, the Pan Caribbean Partnership Against HIV/AIDS (PANCAP) was established with a goal of preventing the spread of HIV/AIDS and ending the distress that the epidemic causes across the Caribbean (Avert, 2008). Other regional institutions that are involved in the response to the HIV/AIDS epidemic include The Caribbean Community and Common Market (CARICOM), the Caribbean Epidemiological Center (CAREC), and the University of the West Indies (UWI) (Pan-Caribbean Partnership on HIV/AIDS, 2002). The Secretariat of CARICOM has taken a lead role in the regional response to the HIV/AIDS epidemic, and heads the Caribbean Task Force on HIV/AIDS.

The Caribbean Task Force led a consultation process and developed a

comprehensive five-year strategic plan for the region (World Bank, 2000). The objective of the Regional Framework is to give support to national efforts to control and prevent the HIV/AIDS epidemic and help stem its consequences at regional and national levels (Pan-Caribbean Partnership on HIV/AIDS, 2002). CAREC runs a Special Program on Sexually Transmitted Infections in the English and Dutch speaking countries of the Caribbean (World Bank, 2000). However, a critical challenge is how to build upon the relatively small scale of intervention programs that are in place to address the large and complex issues of the epidemic (Pan-Caribbean Partnership on HIV/AIDS, 2002). Many countries have drawn up (or are in the process of producing) country specific national HIV/AIDS strategic plans, but it should be noted that this process needs to be strengthened in most places.

These national strategic plans should measure the current situation and specific issues unique to each country in the Caribbean (Pan-Caribbean Partnership on HIV/AIDS, 2002). UWI promotes preventative measures that they hope will help stem the epidemic. The Department of Psychology will develop a risk reduction using a new course on behavioral modification and the Department of Economics will further develop its teaching capacity in health economics (Pan-Caribbean Partnership on HIV/AIDS, 2002).

Despite similar colonial histories, agrarian legacies and dependence on tourism, when it comes to addressing HIV/AIDS the differences between the nations of the Caribbean outnumber the commonalities. Each country in the Caribbean faces a unique situation in terms of wealth, geographic location, politics, and languages. As such, the

HIV/AIDS epidemic manifests itself differently in Caribbean countries (Avert, 2008).

UNAIDS has listed several factors that contribute to an underestimation of the scope and size of the epidemic in the Caribbean (World Bank, 2000).

- *A lack of standardized case definition in the region as a whole, which makes consistent diagnosis and uniform reporting difficult

- *Few and outdated sentinel surveillance studies to determine HIV seroprevalence over time

- *A lack of national policies in the Caribbean regarding testing and reporting of HIV

- *Limited or no access to voluntary, confidential HIV testing and counseling

- *Underreporting, late reporting, or no reporting of cases

- *Resident's fear of being tested for HIV, given that a positive test result may lead to marginalization or exclusion from society, workplace and/or community
(World Bank, 2000: 11-12).

Health officials stress the importance of understanding that the Caribbean region's ethnic and cultural diversity is reflected in varying HIV statistics for each nation (Voelker, 2001). In some countries (such as Cuba or St. Lucia) reported HIV prevalence is still low, but in others such as Barbados, Haiti, and the Dominican Republic HIV prevalence rates are estimated at 2-5% (Pan-Caribbean Partnership on HIV/AIDS, 2002). Different beliefs such as religious views of homosexuality and the close-knit nature of island communities have had a negative compounding effect on the spread of HIV/AIDS throughout the Caribbean (Voelker, 2001). Overall, the Dominican Republic and Haiti account for 85% of the total number of HIV cases in the Caribbean. However, other

countries in the Caribbean that have low HIV prevalence are also vulnerable to the epidemic (Pan-Caribbean Partnership on HIV/AIDS, 2002).

One of the most important areas of emphasis in all countries affected by the prevalence of HIV/AIDS is the emphasis on prevention efforts among young people. Kofi Annan, the recent United Nations Secretary-General, addressed this issue in a speech given at Zhejiang University in China in October 2002,

Young people are the key in the fight against AIDS. By giving them the support they need, we can empower them to protect themselves against the virus. By giving them honest and straightforward information, we can break the circle of silence across all society. By creating effective campaigns for education and prevention, we can turn young people's enthusiasm, drive, and dreams for the future into powerful tools for tackling the epidemic. (UNAIDS, 2003: 3).

HIV/AIDS disproportionately affects the younger segments of the population in the Caribbean, as elsewhere. Seventy percent of AIDS cases in the Caribbean are found in individuals aged 15-44, and half in individuals aged 25-34 years old (Pan-Caribbean Partnership on HIV/AIDS, 2002). This means that the time it takes HIV to progress into AIDS infection, a majority of these infections occur in individuals who are in their teens and early 20s (Pan-Caribbean Partnership on HIV/AIDS, 2002). In a recent survey carried out among youth in four English-speaking Caribbean countries, among those who reported being sexually active, more than 40% had their first sexual debut before the age of 10; an additional 20% reported having sex at age 11-12, suggesting that virtually two thirds of those surveyed had pre-teen sexual experiences (Pan-Caribbean Partnership on HIV/AIDS, 2002).

Women are particularly at risk of becoming infected with HIV at a very young age (Pan-Caribbean Partnership on HIV/AIDS, 2002). Worldwide, 60% of HIV infections in women occur before the age of 20 (UNAIDS, 2003). Women, especially in developing countries (where HIV prevalence is highest) are discriminated against in many different ways and to varying degrees (UNAIDS, 2003). These patterns are repeated in many of the Caribbean countries and are a reflection of the social conditions apparent in these countries (Pan-Caribbean Partnership on HIV/AIDS, 2002). Peer pressure to have sex early, combined with coercive sex, incest, rape, domestic violence and predator “sugar daddies” are all factors that lead to early HIV infection in young women (Pan-Caribbean Partnership on HIV/AIDS, 2002). “In my culture, a man is not a man unless he has five women,” said Yolanda Simon, who is the director of the Caribbean Regional Network of People Living with HIV/AIDS (CRN+) (Volker, 2001). Similar cultural practices such as multiple sex partnering among men, low levels of condom use, limited access to information on sex and HIV/AIDS, high levels of economic dependency, and persistent poverty make women all the more vulnerable to HIV infection (CIM, 2006).

Fortunately for the Caribbean region there is still an opportunity to prevent the HIV/AIDS epidemic from reaching the very high levels found in many sub-Saharan African countries (World Bank, 2000). What is needed most is a wide-ranging multi-sector, national response that mobilizes the resources of civil society, government agencies, and international donors (World Bank, 2000). Some recent studies have given a cause for optimism in the regions fight against HIV/AIDS. Some countries in the

Caribbean have recently shown signs of a decline in prevalence. HIV levels have decreased in Haiti, partly attributed to changes in sexual behavior and an increase in condom use (Avert, 2008). These decreases in HIV prevalence could be evidence of effective HIV/AIDS education and intervention programs much like GRS and FfL.

HIV/AIDS in St. Lucia

In the late 1980s and early 1990s, there were relatively low levels of HIV/AIDS infection in St. Lucia. As of 2007, there have been 648 reported HIV infections since 1985 in which 341 of those cases have progressed to AIDS. 288 of those individuals infected with AIDS have died, showing a mortality rate of 84% (Day, 2008).

Currently, St. Lucia's HIV prevalence rate is reported at .12%, but due to gross underreporting, it is estimated that this represents only about 26% of the number of cases (Parris, 2006). In addition, studies to determine the HIV/AIDS prevalence rate in St. Lucia have not been fully undertaken. Other quoted HIV/AIDS prevalence rates range from .22% to .51%, with some quoted prevalence rates as high as 1.8% which are said to represent the top end of the range (Day, 2008). With poor surveillance and underreporting, it is almost impossible to determine the actual prevalence rate. However, the data that is available shows that there has been a steady increase of HIV/AIDS infections since 1985 (Day, 2008). This underreporting stems from many reasons, including the stigmatization of HIV/AIDS, poor surveillance, and lack of education to individuals that are involved in high-risk sexual behaviors, and high levels of discrimination (Parris, 2006). As noted earlier, the most susceptible group to HIV

infection is persons aged 25-34 years, who account for 32.5% of all infections, with men in this age group accounting for 31% and women 34% (Parris, 2006). Figure 2.2. below shows the cumulative HIV cases by age distribution from 1985 to 2005 in St. Lucia.

Figure 2.3. below shows the reported AIDS cases in St. Lucia from 1990 to 2005.

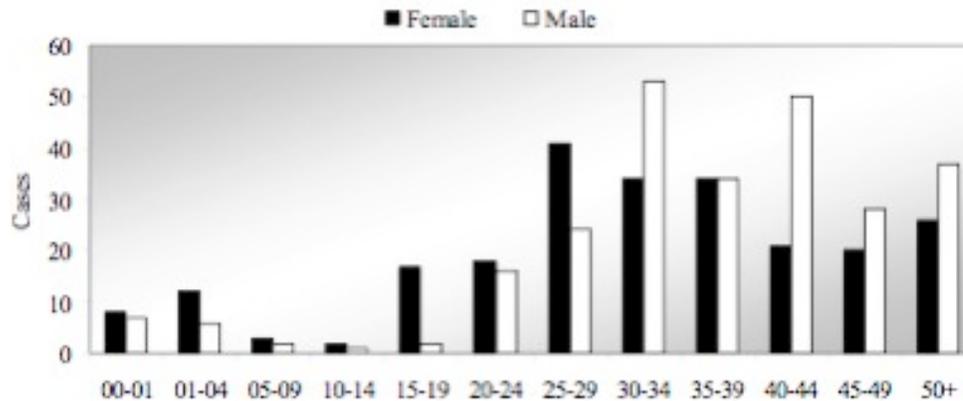


Figure 3.1, Cumulative HIV Cases by Age Distribution in St. Lucia (1985-2005).
Source: AIDS Registry MOH (Parris, 2006).

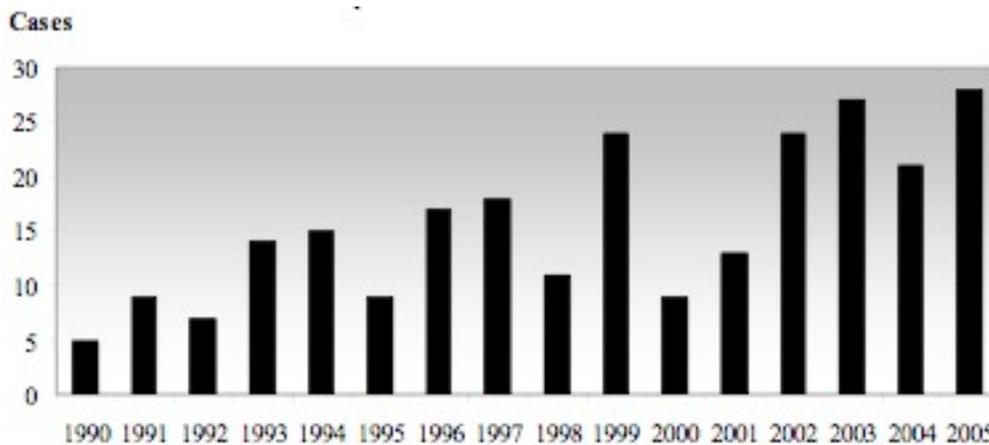


Figure 3.2: Reported AIDS Cases in St. Lucia: 1990-2005.
Source: AIDS Registry MOH (Parris, 2006).

The government of St. Lucia has implemented policies to help negate the spread of HIV/AIDS. The government also serves to monitor and manage the epidemic. As mentioned above, the government of St. Lucia was allotted funds from the World Bank (\$6.4 million) to develop and implement a five-year National HIV/AIDS strategic plan (CIM, 2006). The National HIV/AIDS strategic plan was implemented in 2005 and is planned to be in effect until 2009. The plan is divided into four strategies: advocacy and policy development, comprehensive HIV/AIDS care for all persons living with HIV/AIDS, preventing further transmissions of HIV and, strengthening national capacity to deliver an effective and coordinated and multi-sector response to the epidemic (National HIV/AIDS Strategic Plan, 2005).

The Saint Lucia National HIV/AIDS Strategic Plan 2005-2009

Strategic Goal: To reduce HIV transmission and to mitigate the impact of HIV and AIDS on all levels of society

Four Broad Strategies:

STRATEGY 1. Advocacy, Policy Development, Including advocacy, policy and legislation, poverty reduction, human rights.

STRATEGY 2. Comprehensive HIV/AIDS care for all people living with HIV/AIDS (PLWHA) including treatment, care and support; guidelines and protocols; psychosocial care; stigma and discrimination; workplace interventions; community and health systems interventions

STRATEGY 3. Preventing further transmission of HIV including testing and interventions among targeted and vulnerable groups

STRATEGY 4. Strengthening national capacity to deliver an effective, coordinated and multi-sector response to the epidemic. Including research and surveillance; monitoring and evaluation; empowering the NACC; multi-sector coordinating and collaboration
(Day, 2008).

Source: Day, 2008

Some activities recently completed demonstrate the high level of commitment to the St. Lucia National strategic plan. In January 2006, The National Aids Coordinating

Council held a HIV/AIDS sensitization workshop for members of Parliament and other ministers and politicians. The featured guest speaker was Sir George Alleyne from the Special Envoy for HIV/AIDS in the Caribbean (Parris, 2006). The National Youth Council (NYC) together with the National HIV/AIDS youth lobby groups held a summit for youth on November 22, 2005 (Parris, 2006). The overall theme for the summit (based upon the international theme for World AIDS Day, 2005) was “Stop AIDS. Keep the Promise” (Parris, 2006). The National Youth Council encouraged the youth participants to make personal healthy lifestyle choices that will diminish the likelihood of HIV infection. Youth were encouraged to pass the message onto others in their respective communities (Parris, 2006). The goal of the summit was to, “Bring youth together (10-19 years) from a broad cross-section of the island to commemorate World AIDS Day and to reflect on the impact that HIV/AIDS has had on their lives.” Another goal was “To help them to explore creative approaches (arts, drama, dance, poetry, etc) of disseminating empowering HIV/AIDS messages to their peers” (Parris, 2006: 11-12).

In addition, a National AIDS Coordinating Council (NACC) was created to manage the HIV/AIDS epidemic on the island. The head of this program is the Prime Minister of St. Lucia, which helps guarantee money and support for this program at the highest levels (CIM, 2006). A sub-committee of the NACC is in charge of reviewing and approving funding proposals submitted by line ministries and civil society which is chaired by the representative of the Chamber of Commerce, Industry, and Agriculture (Day, 2008).

The National AIDS Programme Secretariat (NAPS) acts as the executive arm of the NACC. All the positions are paid under the World Bank agreement (Day, 2008).

The national response is lead by the Ministry of Health (MoH). Staffing involved in the HIV response within the MoH include a Director of the National AIDS Programme, two STI nurses, two STI physician, a health educator, a Clinical Care Coordinator, a secretary, two social workers, and community health workers (Day, 2008).

Table 3.1. Staff Composition of National AIDS Programme Secretariat, St. Lucia, 2008.

Position

1. Director
 2. Line Ministry and Civil Society Coordinator
 3. Health Education Coordinator
 4. Monitoring and Evaluation Coordinator
 5. Information Technology Coordinator
 6. IEC Coordinator
-

Source: Day, 2008.

Another NGO that has been established to help combat the and impacts and spread of HIV/AIDS is the AIDS Action Foundation (AAF) (BPOA, 2004). This organization has sought to bring together decision makers, capacity builders, and stakeholders to help train locals. A second and critical target for this organization is all decision makers should be engaged in introducing best practices of HIV/AIDS education. AAF has promised funding for peer-based support and discussion, especially for women

and youth at risk (CIM, 2006). Under the umbrella of the AIDS Action Foundation, private sector organizations such as financial institutions, retail traders, media, the hotel sector, and other institutions have significantly contributed to the fight against HIV/AIDS in St. Lucia (Day, 2008). In return for HIV/AIDS prevention education and training, these institutions have helped out the AAF with provisions of ARVs, development of workplace policy, development and airing of HIV prevention messages, care and support of PLWHA, and reduction in communication cost (Day, 2008). The Barber Shop Program is a great example of a unique AAF program. Under this program, barbershops are now encouraged to distribute condoms to their patrons. Young persons, especially young girls, have reported being more comfortable obtaining condoms from the barber shops (Day, 2008).

AAF has collaborated with Peter and Company (a company engaged in wholesale and retail sale of food, motor vehicles and construction materials), Renwick and Company (wholesale import and sale of pharmaceuticals and cosmetics), Sandals Resorts, and other large companies in St. Lucia to implement a “HIV in the workplace” program (Day, 2008). Cimpex, yet another large holding group, provided a donation of free ARVs prior to the free ARVs given through the World Bank. Media houses and radio stations provided reduced and free placement of HIV public service announcements provided by the AAF, and DIGICEL (a telecommunications company) provided U.S. \$10,000 for HIV/AIDS prevention youth campaigns during carnival in 2006 (Day, 2008).

These plans, policies, and strategies are a good step in the right direction for St. Lucia to stem the increased prevalence of HIV/AIDS infections through engagement of

public and private sector, mobilized in a collaboration effort. However, many factors hinder the goals of eradicating HIV/AIDS infection rates in St. Lucia. Currently HIV/AIDS still remains under the purview of the Ministry of Health (collaboration with the private sector and other NGOs has not been an active strategy in the past and is only now beginning) (Parris, 2006). Moreover, although the level of political commitment has been high, the leadership at other levels of government needed to spearhead HIV/AIDS prevention programs has come forth begrudgingly (Parris, 2006). Parris (2006) identifies some of the other main challenges facing St. Lucian efforts to achieve their goals and targets for HIV/AIDS preventions. These challenges are summarized in table 3.2

Table 3.2. HIV/AIDS Challenges for St. Lucia.

1. The allocation of resources has not matched the growing needs of the response to the epidemic
 2. HIV/AIDS programs have not addressed all the specific aspects of the national HIV/AIDS epidemic.
 3. National mobilization efforts have not been very effective in achieving buy-in from key sectors.
 4. Entrenched social and cultural mores and values encourage the spread of the epidemic and mitigate the impact of prevention interventions.
 5. Prevention programs have not been very effective in effecting behavior change.
 6. Human resources are very limited and those available are overstretched.
 7. Despite an abundance of financial resources allocated to St. Lucia, the country is unable to utilize this funding in a timely manner.
 8. The desire to continue the use of scare tactics in HIV/AIDS prevention programs has negative impacts.
 9. The high moral stance of faith-based organizations leads to resistance to the use of condoms.
 10. Too much of the HIV/AIDS prevention programming is donor driven and this stifles creativity.
 11. Consultation with communities in program development and implementation is inadequate.
-

Source: Parris, 2006: 13-14.

The increasing rate of HIV/AIDS infection in women is a huge potential problem that St. Lucia has only just begun to deal with. As discussed in the demographic overview in this report, women in the Caribbean often act as primary heads of their households (CIM, 2006). The spread of HIV/AIDS could have the potential to erode the

stability of Caribbean households as the disease affects more women than men.

UNIFEM, an NGO, has sought to address this particular problem by addressing the feminization of HIV/AIDS and in that effort to give policy makers a better understanding of “gender caused consequences of HIV/AIDS” (CIM, 2006). This initiative was developed from a series of discussions lead by UNIFEM to address not only the feminization of HIV, but also the need for policy makers to have a better understanding of how HIV affects males and females differently. (Capacity Building, 2005). Figure 3.3 below shows HIV/AIDS cases by gender in St. Lucia, as one can see, that rate in which women are becoming infected is consistently increasing.

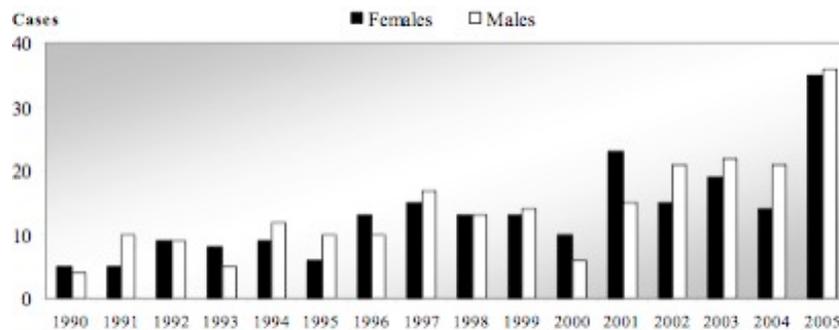


Figure 3.3: HIV Cases by Gender in St. Lucia.
AIDS Registry MOH (Parris, 2006).

It is of utmost importance for individuals implementing HIV/AIDS education and prevention programs to know how the disease affects men and women differently. This will allow a program to be designed so that it specifically meets the needs of each gender. Thereby the program may increase its effectiveness at decreasing high-risk behavior that could lead to HIV infection. As our discussion has pointed out, HIV/AIDS is a complex

phenomenon in St. Lucia. In response to HIV/AIDS, more and better education programs will be needed in order to encourage behavior change. We now turn attention to the Caribbean and St. Lucian experience with HIV/AIDS education

HIV/AIDS Education in the Caribbean and St. Lucia

Today, HIV/AIDS has no cure (a vaccine is only dimly in sight, and antiretroviral therapy will never provide a complete solution). “Education can be a powerful force—perhaps the most powerful force of all—in combating the spread of HIV/AIDS” (Kelly and Bain, 2003: 67). In the book *Education and HIV/AIDS in the Caribbean*, Kelly and Bain (2003) identify the following facets of education and its effect on alleviating the HIV/AIDS epidemic in table 3.3.

Table 3.3. Facets of Education and Effects on Alleviating the HIV/AIDS Epidemic.

1. Education is necessary for galvanizing the political momentum and community mobilization that are central to success against HIV/AIDS
 2. Education is necessary for reducing stigma and discrimination, which are seen as twin pillars that support the continued spread of the disease and undercut care and support for the infected and affected.
 3. Education enters in a fundamental way into every communication on prevention
 4. Some form of education is intrinsic to every programme of treatment and care
 5. Formal school education and non-formal programs for young people reach into communities and families in ways that no other services do.
 6. Formal and non-formal education programs are largely the province of the young, the category at greatest risk of becoming infected with HIV.
 7. There is a growing body of evidence that education empowers individuals to take decisions that are more life affirming. In this sense, the more education, the less likelihood of HIV.
-

Source: (Kelly and Bain, 2003: 67)

To date, most educational ministries in the Caribbean have responded to the HIV/AIDS epidemic by adopting a predominantly curriculum based approach. However, these curriculum-based approaches and models did not necessarily accommodate for a wide variety of other contextual factors (Schenker, 2001). In efforts throughout the world, early curriculum based HIV/AIDS prevention programs were predicated upon the assumption that providing knowledge alone would meet the need of HIV/AIDS prevention (Schenker, 2001).

In the case of St. Lucia, educating individuals most at risk is imperative. HIV prevention programs play a crucial part to building awareness around the world. HIV prevention curricula need to be evaluated so program decisions can be made on observed

data and not on “subjective impressions” (Holtgrave, Qualls, and, Curran, 1995).

According to Holtgrave et al. (1996) and most would agree, ultimately “success” is averting or reducing HIV related risk behaviors.

Clearly, measures of success need to be criterion based. Initially, messages must be tailored to the specific audience. Secondly, there must be well-defined objectives outlined in the program (Holtgrave et al., 1995). Research has also shown that for the most part, intensive and sustained interventions are needed in order for the programs to work. Along with the idea of a commitment to long term intervention is the obvious factor of sufficient resources to keep the program running, including human capital as well (Holtgrave et al., 1995). Sufficient resources must include the necessary funds for passing policies, monitoring progress, and other administrative costs. For example, the effort calls for outlays such as these considered during the Special Session of the General Assembly of the United Nations (UNGASS) in June of 2001. The UNGASS decided to increase the total prevention costs of each country by 10% in order to better sustain education efforts (Schwartlander et al., 2001).

The answers to a number of critical questions need to guide renewed efforts. Who should be subject to HIV/AIDS education? For example, what form should AIDS education take? In addition to the general public, how do we identify and approach cohorts most in need and at what point in the human maturation cycle will a tailored message be required? What has been proven as the “best” way to teach individuals about HIV/AIDS? Whose job is it to teach HIV/AIDS education? It is no surprise that these questions are currently provoking heated debate all around the globe. Obviously, not all

HIV/AIDS education curriculum is suitable for all people. You would not expect an HIV/AIDS curriculum developed for youth in the U.S. to be able to be communicated to adults in China, and vice versa. Today, over half the world's population is under the age of 25 years old, making this the most vulnerable demographic. It is imperative that HIV/AIDS education focuses on this demographic of people for there to be any change in infection rates across globe (Avert, 2008).

St. Lucia is currently working to develop strategies and services to help young people. They recognize the need to change gendered social norms and behavioral patterns in sexual relationships. The UNAIDS program is supporting this through their Program Acceleration Fund facility. This program is working to provide a supportive and youth friendly environment that facilitates open dialogue on sexuality, reproductive health, gender dynamics, and HIV/AIDS (Strategic Plan, 2005). Many NGOs have the ability to access to youth and replicate the ideas of the Program Acceleration Fund.

Discussion to this point has drawn a brief history and provided an update on the emergence of health policy in the Caribbean and especially St. Lucia. The areas HIV/AIDS experience have been traced. The focus for prevention has been described as undertaken by the ministries of education and health. Curricular efforts used up to this point in time have been examined to promote prevention education and a new program GRS and its efforts in using community soccer to promote HIV/AIDS awareness and prevention has been described. In the following chapter, the design of a field research project conducted in St. Lucia is discussed.

Chapter 4.

Research Design and Results

Quantitative Study

The initial FfL project formation reported here emerged during research conducted as a part of the author's graduate study at the University of Vermont. Enrolled in CDAE 295, *Sustainable Development in Island Communities* (taught by Professor Gray Flomenhoft, Department of CDAE), the author joined students who were required to identify a country based development problem (St. Lucia), conduct a review of relevant literature and summarize the findings in a class report. In reviewing the *St. Lucia National Report a review of the Barbados Programme of Action, 2007* there was a brief section that provided statistics about the prevalence rates and described the work that the AIDS Action Foundation and the government of St. Lucia is involved in. Of special interest in this report was a call to strengthen peer based education campaigns in the country.

As the class unfolded, a group formed and started a discussion of possible projects to pitch to various ministry officials in St. Lucia as a class project. It took some time to nail down what study group was going to do and it was not until April Orleans, a participating student, suggested we examine the GRS Model employed by UVM Professor Jon Erickson (Rubenstein School of Natural Resources) in the Dominican Republic.

Over the next two years, there were three FfL interventions in St. Lucia. Those three interventions are listed in table 4.1 and below.

Table 4.1. Football for Lives Field Interventions

Intervention	Date	Location
1. Pilot Project	December 30, 2007-January 13, 2008	Micoud and Vieux Fort, St. Lucia
2. Summer 2008	July 17, 2008-June 24, 2008	Micoud and Mon Repos, St. Lucia
3. January 2009	December 28, 2008-January 11, 2009	Mon Repos, St. Lucia

Table 4.2 below lists the collected demographics of each FfL intervention.

Table 4.2. Football for Lives Field Intervention Demographics.

Intervention	Schools involved	Age Range of Participants	Number and Gender of Participants
1. Pilot Project	Micoud Primary School	10-12	45 males and females
	Vieux Fort Secondary School, Campus A	13-16	117 males and females
2. Summer 2008	Mon Repos Combine	10-12	21 Males, 19 Females
	Patience Primary School	10-12	22 Males, 25 Females
3. January 2009	Mon Repos Combine	10-12	15 Males, 18 Females
	Patience Primary School	10-12	21 Males, 23 Females

During the pilot project intervention the study group worked with the fifth and sixth grades from the Micoud Primary School and the seventh and eighth grades at Vieux For

Secondary School, Campus A. When working with the seventh and eighth grades, it was observed that they did not respond to the activities as positively as did the fifth and sixth graders. Many of these older youthful participants seemed to think that the games were too childish or did not want to participate for some other reason. Therefore, it was decided that the FfL program would focus on fifth and sixth grade (10-12 years old) students. At the conclusion of the pilot project intervention, the study group was invited to return to St. Lucia to implement a full scale FfL intervention.

The study group returned to Vermont in 2008 with a commitment to continue the project. A meeting with Professor Jon Erickson (Associate Professor, University of Vermont) to discuss future options for our program was conducted. He suggested that if we really wanted to continue with this program that we go through a full GRS training lead by him over the course of the 2008 spring semester. Participants met with Professor Erickson on six Fridays for two hours to complete the training. For these training sessions students were required to each learn a game from the curriculum, prepare the necessary materials, and present the game to the rest of the study group in a way that all group members learned how to teach the game. Erickson also shared with us what to expect when we implement the games, to anticipate inevitable questions that we would be asked, and to consider difficulties he has had as well as solutions discovered while working with the FPV program in the Dominican Republic.

During the Summer 2008 intervention, we administered a pre and post-test survey to participants that had questions regarding basic HIV/AIDS knowledge that was taught during the FfL project implementation. This survey instrument would measure the

change in survey answers from pretest to posttest. The survey consisted of fourteen questions, took 5 to 10 minutes to complete and was administered at the beginning and end of each FfL program. The pre and posttest surveys were presented in a group setting to both the experimental and control group.

The experimental group was presented the pretest survey as a group on the first day of the FfL program. The control group was presented the pretest surveys at this time as well, but subjects of the control group did not participate in the FfL program. Posttest surveys were presented to the experimental group at their graduation ceremony. The control group was presented the posttest surveys at the conclusion of the experimental groups' FfL program in July 2008. There were a total of 84 participants in the experimental group and 10 individuals in the control group.

In January 2009, FfL conducted a five-month follow up survey for those students who participated in the FfL program in the summer of 2008. The survey instrument was the same as the previous survey administered throughout the study. The students surveyed for the five-month follow up test were sixth grade boys and girls from the Patience Primary School and the Mon Repos Combine School. These students were in the fifth grade during the summer 2008 FfL program. The sixth grade students from Patience Primary School were administered the follow up survey on January 5, 2009. The sixth grade students enrolled in the Mon Repos Combine School were administered the follow up survey on January 7, 2008.

Qualitative Assessment of Training of Student Coaches

This pilot study was an evaluation of how the training of coaches was carried out through the fall of 2008 as we prepared for FfL third intervention with four new UVM students involved in the FfL study group. Through the months of October-December, 2008, three in-depth interviews and four training session observations were conducted. The participants of the interviews were selected on availability, accessibility, and current involvement in the GRS/FfL program. The in-depth interview questions asked were developed, in part, from other assessments done on GRS program throughout the world (see pages 10-14, review of past GRS evaluations). Table 4.3 below shows the interview schedule for the qualitative study.

Table 4.3 In-depth Interview Schedule

Interview	Date and Location	Person Interviewed
1.	11/4/2008. Third Floor Commons. Morrill Hall, UVM	Director of Training for FfL St. Lucia
2.	12/3/2008. St. Lucia HIV/AIDS Secretariat. Castries, St. Lucia	Sophia Edwards-Gabriel. HIV/AIDS Focal Point in the Ministry of Education.
3.	12/4/2008. Mon Repos, St. Lucia	Andy Behl (Peace Corps Volunteer)

The observational component of the study was carried out over a four-week period in which four one-hour training sessions of the new GRS/FfL coaches were observed. These newly trained coaches traveled to St. Lucia in December, 2008 to continue the implementation of the program. These training sessions took place on four

consecutive Fridays starting on October 24, 2008 and the last one being held on November 14, 2008. Table 4.4 presents the observation schedule for the qualitative study

Table 4.4. Observation Schedule

Observation	Date and Location	Individuals Involved
1.	10/24/2008. Morrill Hall 010, UVM	3 females, 1 male, 1 professor, Director of Training
2.	10/31/2008. Morrill Hall 010, UVM	3 females, 1 male, 1 professor, Director of Training
3.	11/7/2008. Morrill Hall 010, UVM	3 females, 1 male, Director of Training
4.	11/14/2008. Morrill Hall. Justin Morrill Honors Lounge	3 females, 1 male, Director of Training

Results: Qualitative Findings

As discussed in detail in Chapter 2, peer education is one of the main features of the GRS/FfL program and curriculum. This St. Lucian program was developed using the social learning and social cognitive theory which suggests that kids/youth learn best from peers who they respect, learning is not a spectator sport, and it takes a village or community to rally individuals around social programs and issues such as this one (Grassroot soccer, 2008).

While reviewing the transcripts of the interviews from the observations, it was found in many instances that the peer education theme was explicitly stated or suggested.

This suggests that in practice, one can see that the Social Learning Theory in practice and be assured that this tenant, so prominent in the theoretical perspective, enjoys field validity and its utility is supported empirically. In interview 1, the director of training stated multiple times how great the program is because of the peer education aspect.

When asked,

“what are the areas of strength in the GRS/FfL program that you see”,

the Director of Training Responded in

I think a couple of things, one I mentioned before, the flexibility of having these games and this curriculum it can be really adapted to where you are and who your working with and also the huge focus on peer education, I think is so important in these places that even though when we go there first and we were facilitating these games and then you see the transformation of you facilitating it to somebody in the community who is highly respected and then they are facilitating the games to these young kids, I think that is the most important part and most exciting part of this curriculum.

Another example of the Director of Training referencing the importance and effectiveness of peer education was her response when asked

“...what would you say or what would you consider a success over a two year period or three year period from now, how would you view the program being successful or being not successful?”

...I think it would be a great success if we could have the program organized and run so that the trainers can do it on their own when we are not there, and you know they can start identifying people in their own communities who they think would be great role models and that would create the sustainable program that we are looking for.

In interview 3 the Peace Corps Volunteer in the village of Mon Repos was asked,

“What is your overall impression of the Grassroot Soccer/Football for Lives program curriculum?”

His response highlighted the importance of peer education.

I really love how simple the program is and how easy it is to implement the program...in particular, peer education, which gets the youth teaching youth and can empower individuals to take responsibility for the program and for their health and ability to live HIV free...peer education is the base for this program ok? Well it's better for all people involved, kids learn best by seeing their peers or role models interacting with them.

In other instances when working with the kids in Mon Repos, if you give them the responsibility to run something or take something on and if their peers are the ones who hold them accountable and they can take ownership of the program, and this seems to me, creates a sense of sustainability and ownership of the program through peer education.

The evidence above demonstrates how both these individuals embrace the power of peer education. Sophia Edwards-Gabriel (St. Lucia HIV/AIDS Prevention and Control Project Ministry of Education and Culture) added to this finding as well. In interview 3, she pointed out that in the HIV/AIDS education curriculum that they use in some of the schools in St. Lucia also employs the idea of peer education noting that it allows the peers to interact with each other. It was also pointed out that the peer education aspect takes the burden off teachers having to get up and give a lecture in front of the class about such a taboo subject. She added that it serves to bring both teachers and students together to talk about HIV/AIDS and the stigmatization of the disease. Mrs. Edwards-Gabriel pointed out how this interaction might stem the increased stigmatization of the HIV/AIDS, which is one of the main goals of both the GRS/FfL curriculum and of the curriculum proposed by the St. Lucian HIV/AIDS secretariat.

The other major theme identified appeared embedded in suggestions given on how the GRS/FfL activities should be implemented, as well as suggestions on how the FfL program could be better implemented. For example, the Director of Training responded to the following question in interview 1

“...what suggestions would you give for improvement...”

Well I guess one thing that would be really helpful, is that I know we talked about recently trying to put the games in an order that is really cohesive and really connects all the games together, and I feel like sometimes when you read through the curriculum they (the games) could be put in an order that would make more sense so it could be used right away for new comers

In every training session, many observations were noted in which the trainees and the director of training were giving each other suggestions on how to run each game. For example, in observation 3 the following was observed,

The Director of Training talks about reviewing of the curriculum and rearranging games to add a better flow to the games. Some people talk about how frank the book is, laugh at the word masturbate, so the Director of Training talks about that everybody needs to be comfortable talking about such taboo subjects.

Another good example of how these suggestions were employed by the Director of Training was noted in observation 1. This observation had to do with separating genders in St. Lucia when some of the games are implemented.

The Director of Training explained that in the past that each coach or trainer usually had a group of 6-10 students and that it has worked best in the past for the female students to go with the female coaches or trainer and that the male students go to with the male coaches and trainers. She explained that in the beginning of the project last year that we had the genders together but quickly realized because we are talking about HIV/AIDS, sex, and lifestyle choices that girls participating in the camps would not speak in front of the boys. However, once removed and having all the girls together with all female coaches and trainers they opened right up and started talking at will about these taboo subjects...and said that's what has made the program such a great success down there, the fact that now they can open up (females in the program) to each other about these issues in which they have not been able to before, even in front of family/friends/or at school.

The observations and interviews all have many more elements (appearing in the suggestions for implementation for the GRS/FfL games), which point out that there are many ways to implement these games. Clearly, they emphasize that it depends on many variables such as location, gender of trainer, gender of children, and confidence of the trainer. The suggestions noted in the observations and interviews are important to share with all in the GRS/FfL program so that they can have a better understanding of program strengths and weaknesses. Moreover, future programs can employ these themes in project implementation

Results: Quantitative Findings

For the quantitative analysis study, the results of the pretest, posttest and five-month follow up surveys (presented to program participants throughout the study) are examined. This examination yielded baseline results articulated in the survey instrument that, hopefully, can be drawn upon in future quantitative studies of the FfL program. The GRS/FfL survey contained 14 questions regarding basic HIV/AIDS related knowledge and stigma related questions (see Appendix A for GRS/FfL survey).

The survey administered in this program has three options to choose from: agree, disagree, and not sure. Analysis was concerned with measuring change in survey response by groups to get an overall indication of survey responses. The survey results were entered into SPSS and then recoded to a binary code; either a correct or an incorrect response using a dummy variable of (0, 1) where 1 is a correct response and 0 an incorrect response. The sum of correct responses was calculated for each participant in each group with paired t-tests performed to compare change in survey response from pre to post intervention and from post intervention to five-month follow up. The mean of correct responses was divided by the total number of questions (14) on the survey to calculate the percent of correct responses. In addition, cross-tabs were utilized with a McNemar test in SPSS to determine the percentage of program participants that changed their responses from pre to posttest.

As with all social science studies, one must constantly be aware of certain biases that might affect the results. Bias in this study might cover or expose effects that did or

did not occur in the study as well as underestimate or exaggerate the degree of certain effects (Kaufman, 2008).

One of the most important biases to be aware of with evaluations of HIV education and prevention programs is the so-called “Social Desirability Bias” (SDB) (Kaufman, 2008). SDB describes the tendency for respondents to answer in a way that would be viewed favorably by others (especially peers) (Social Desirability Bias, 2009). Recall Bias (RB) is another type of bias that could skew the results of the study. Recall Bias occurs when the respondents’ answers to a question is not only affected by the correct answer, but also by the respondents’ memories of the past events (Recall Bias, 2009; Kaufman, 2008). Sensitive question bias might cause a respondent to not answer a particular question or answer it differently because the question causes the respondent to feel uncomfortable (Kaufman, 2008). The survey used in this study uses the words sex, HIV/AIDS, drugs, and alcohol. These words might cause a respondent to become uncomfortable when answering the survey questions or for the respondent to not answer the question truthfully. Lastly, it is important to acknowledge interview bias. The UVM student coaches were the ones administering the survey, and in the room at the time the respondents completed the survey. In this case, the respondents might have answered questions in way that would please me (the primary field researcher), but not how they would normally answer the questions. It is difficult to get around these biases, but equally important to acknowledge these them when looking at the results of the study.

For this study, there were a total of 84 ($N=84$) experimental group respondents with ($n=43$) females and ($n=41$) males. There were only ($N=10$) control group

respondents. For each school in the study there were ($n=46$) for Patience Primary School and ($n=38$) for Mon Repos Combine School. For the five-month follow up survey, there were ($N=32$) respondents from the posttest to the five-month follow up. In this group there were ($n=18$) females and ($n=14$) males. Table 4.5 shows the treatment groups overall pretest and posttest scores on the GRS/FfL survey.

Table 4.5. Treatment Group Pretest and Posttest Scores on GRS/FfL Survey

Pre Score	Post Score	Change	Statement
69%	71.4%	2.4%	The most effective way to avoid HIV/AIDS is to abstain from sex (to not have sex at all).
56%	84.5%	28.5%	HIV is the same thing as AIDS.
88.1%	89.3%	1.2%	If I decide to have sex, using condoms correctly every time can help protect me from getting HIV/AIDS.
79.8%	83.3%	3.5%	I can avoid getting HIV/AIDS.
53.6%	70.2%	16.6%	If a relative became sick with HIV/AIDS, I would be willing to care for him or her in my own home.
84.5%	89.3%	4.8%	I can tell if someone has HIV/AIDS by looking at them.
67.9%	79.8%	11.9%	If I choose to have sex, there is a greater chance of getting HIV/AIDS if I have more than one sexual partner.
20.2%	38.1%	17.9%	Consuming alcohol and/or drugs increases the risk of getting HIV/AIDS
71.4%	79.8%	8.4%	Unprotected sex is the most common way for HIV/AIDS to spread
70.2%	78.6%	8.4%	You can get HIV/AIDS by hugging or kissing somebody with HIV/AIDS.
77.4%	81%	3.6%	HIV/AIDS virus is found in human blood
63.1%	72.6%	9.5%	There is a cure for HIV/AIDS.
73.8%	71.4%	-2.4%	I can talk to my friends/peers about HIV/AIDS
89.3%	89.3%	0%	I can talk to my parents/family about HIV/AIDS

The treatment group showed an overall increase of percent of correct responses from 69% on the pretest to 77% on the posttest. The control group showed an overall shift from 64% on the pretest to 67% on the posttest of percent of correct responses.

When the results were broken down by gender in the treatment group, it was found that females had a higher percentage of correct responses on the pretest 72%, compared to males 65%. Females also scored higher on the percentage of correct responses on the posttest 81% compared to males 73%. It is important to note that in both genders the percentage of correct responses increased from pretest to posttest. Table 4.6 and 4.7 below show the treatment and control group correct responses by gender.

Table 4.6. Overall Percent of Correct Responses by Gender in Treatment Group (N=84).

Gender	Pretest	Posttest
Males (<i>n</i> =41)	65%	73%
Females (<i>n</i> =43)	72%	81%

Table 4.7. Overall Percent of Correct Responses by Gender in Control Group (N=10).

Gender	Pretest	Posttest
Males (<i>n</i> =3)	50%	57%
Females (<i>n</i> =7)	71%	70%

When the results were broken down by the schools where the FfL program was implemented, it was found that Mon Repos Combine School had a higher percentage of correct responses on the pretest (71% compared to Patience Primary School 67%). On the posttest, it was found that Mon Repos Combine School again had a higher percentage of correct responses 78% compared to Patience Primary 77% though this is only a one

percent difference. In both schools, the percentage of correct responses increased from pretest to posttest.

Table 4.8. Overall Percent of Correct Responses by School (N=84).

School	Pretest	Posttest
Mon Repos Combine (<i>n</i> =38)	71%	78%
Patience Primary (<i>n</i> =46)	67%	77%

In the five-month follow up survey, it was observed that there was an increase in percent of correct responses from 69% at pretest to 71% at posttest. This suggests that the participants of the program might retain the knowledge gained over a five-month period. In contrast, however, it might only suggest that students remembered how they answered the survey from the posttest and replicated those responses on the five-month follow up survey.

This chapter discussed the two methods that were used to help understand the impact of the FfL program on the program participants as well as with the UVM student coaches that implement the program in St. Lucia. The quantitative results give a good understanding of baseline HIV/AIDS knowledge defined by the survey instrument. The qualitative results outline two major themes identified by the people interviewed and the observations that the GRS model is based on. The following chapter discusses the implication of these results, and the future course of action for the FfL program to consider as it continues efforts to grow.

Chapter 5. Discussion

Chapter 1 introduced the research topic. Chapter 2 discussed the activities based GRS curriculum for HIV/AIDS prevention with regard to the theoretical basis and how the social learning theory has been applied to the GRS programs. Chapter 3 presented the setting in which the FfL project took place describing the HIV/AIDS epidemic in the Caribbean and in St. Lucia. HIV/AIDS education in the Caribbean and St. Lucia was also discussed. Chapter 4 outlined the study design, both qualitative and quantitative in nature, and presented the findings. In Chapter 5, a discussion of the implication of those results is discussed along with the future path that the FfL program should take in the future.

As stated in the introduction, the initial idea for the FfL project grew out of a service-learning course at the University of Vermont. Service learning was proposed by noted 19th century philosopher and educator John Dewey. Dewey plays a special role at the University of Vermont; not only did he grow up in the shadow of the campus, he is a noted UVM alumnus. Dewey held that “experience was the best way for students to learn how to create the conditions for democracy, solve social problems and engage in moral decision-making (UVM, 2008).”

The FfL program could be looked at as an experiment in service learning. The study group formed a project idea within a service learning class. We took GRS model and applied it to the cultural setting in the village of Mon Repos, St. Lucia. Through the process, we engaged in problem solving, moral decision-making, had the opportunity to learn and reflect about working in another culture, and helped with bringing communities

and community members together so that we could all work together on educating individuals about the HIV/AIDS epidemic. As Dewey states “Education is a social process. Education is growth. Education is, not a preparation for life; education is life itself” (UVM, 2008).

Key Findings: Qualitative

The qualitative assessment allowed for interviews and observations of the training of student coaches that were involved in the FfL program. Through this qualitative assessment, it was learned that key individuals working with the FfL program thought that the program was an excellent way to educate youth about HIV/AIDS. These individuals praised the activities based program, noting especially, how simply an effective program like this can be implemented at a community level even when challenged by the nuances of a different culture and national experience. This finding finds support in the social learning theory on which the GRS curriculum was based. However, discussion emerged regarding the need to develop a GRS based curriculum for the Caribbean. The suggestion was made to use slang phrases and activities more in tune to Caribbean culture.

In interviewing Sofia Edwards-Gabriel, it was discussed how the FfL program should be coupled with other HIV/AIDS prevention programs on the island. This collaboration would result in a more robust and inclusive program capable of expanded reach. It was noted that using soccer could be a limiting factor in the FfL program and in that FfL, in combination with other St. Lucian HIV/AIDS education programs could find

other sports (such as cricket and basketball) appealing to a greater number of participants. Lastly, although FfL is still in program infancy, it was noted that it does not, in fact, explicitly target the high-risk population groups most likely to succumb to HIV infection. (FfL is only implementing the program in Mon Repos, a small village on the east coast of St. Lucia. This area is not considered a high-risk group susceptible to HIV infection.) The high-risk groups are located in and around Castries, St. Lucia's capitol and the most populated (and visited) area on the island.

With these recommendations in hand, it is important for FfL to continue to be involved with discussions with the Ministry of Health, the Ministry of Education, and the National HIV/AIDS Secretariat so that the program can target as many individuals as possible in high risk groups. It is important that a program such as FfL also sees that it has its roots at the community level and that community organizations can take ownership of this HIV/AIDS education program.

Key Findings: Quantitative

After analyzing the pretest results, we see that the program participants already have a basic understanding of HIV/AIDS related issues, especially compared to previous assessments of GRS programs. Kaufman (2008) in his FPV study found that “nearly all the adolescents, regardless of ethnicity or gender, reflected low levels of HIV-related knowledge, attitudes, and interpersonal communication:” (Kaufman, 2008: 127-128). In the Sports for Peace and Life Study in Sudan, (explained in Chapter 5) it was found that HIV attitudes and knowledge improved from 64.7% to 75.4% on their 16-question survey

(Ahlgren, 2007: 4). On the GRS/FfL survey, the overall treatment groups' percent of correct responses increased from 69% to 77% and the control group increased from 64% to 67%. These findings also suggest that FfL should target high risk groups in St. Lucia with lower HIV/AIDS related knowledge defined by the GRS/FfL survey.

It was found that participants of the FfL program sustained and gained HIV/AIDS related knowledge on the GRS/FfL survey over a five-month period. The percentage of correct responses increased marginally from 69% to 71%. This might suggest that over that five month period they talked to others regarding the FfL program, were involved in other HIV/AIDS education programs, or remembered how they answered on the posttest survey and replicated those answers. However, when these results were broken down by gender, it was found that females decreased their percentage of correct responses from 79% to 77% and males increased from 62% to 64%. This is slight, two percentage point drop in correct responses, might suggest that the FfL program is more successful at targeting males than females or that males were exposed to other HIV/AIDS education interventions. The implications of these small differences bear further investigation in future evaluative work.

These qualitative and quantitative results are similar in many aspects to other assessments done on different GRS programs throughout the world. In the FPV evaluation and the Children's Health Council evaluation, they found that in the surveys administered that there was an increase in correct scores from pre to post-test and that post-test findings were sustained over a four or five month period.

In the GRS evaluation carried out for a program in Southern Sudan, similar results were observed, and in particular were borne out in responses to the question “HIV is the same thing as AIDS”. In the Southern Sudan study, it was found the pre score for this question among program participants was 14.9% and increased to 68.6%, a 53.7% increase which was the largest increase of correct responses of that survey. In the FfL program the same question was asked and the percent of correct responses increased from 56% at pretest to 85% at posttest, a 29% increase and was the largest increase of correct responses for the GRS/FfL survey. However, the large increase in this response could be linked to the fact that the question is only regarding a fact, and that one might learn and retain quit easily, and does not reflect a behavior change that we would like to see in a program participant. Overall, it is important to note that the methods used to measure change in HIV/AIDS related knowledge only focus upon perception, they are not to be seen as a way to measure actual behavior change. Sadly, the prohibitive expense (to say nothing of the suggested invasion of privacy) of research measuring actual behavioral change, means that evaluative researchers are bound to measure ultimate program success in terms of behavioral change in gross and often inaccurate and time bound national disease incidence rates.

Football for Lives Program Strengths and Weaknesses.

Unlike most other GRS programs and satellite programs, FfL has not been able to replicate the time spent with an individual program participant. Over the summer of 2008, program staff were only with the program participants for one week at a time. All

stake holders concur with the observation that FfL needs to find a way to continually be implemented in Mon Repos and elsewhere to achieve scalability and sustainability. Most other GRS or GRS satellite programs are able to entice the trainers (through monetary support) to continue to implement the program over a longer period of time. In the Liberia and Sudan GRS satellite programs, many of the trainers engaged were gym teachers at schools, so that they can carrying out the GRS curriculum as part of their job. The curriculum implications of this observation should be further investigated, especially in consideration of introducing this FfL/GRS approach to different sports).

In the FPV program, some of the trainers are given a small stipend to cover transportation costs or food costs. Although FfL has implemented training of trainers, those trainers have not effectively been able to go into the schools or local youth clubs to implement an FfL activity or more extended camp event . FfL programming has relied solely upon the student coaches trained to implement the FfL camps, though some of our trainers are present during this time, they have not had the opportunity to start an FfL camp on their own initiative. Obviously, to date, FfL has not been able to acquire the money needed to employ or provide monetary incentive to coaches and trainers. The whole area of recognition and compensation for program staff as well as community volunteers includes consideration of incentives for promotion, appreciation awards, and so on, is an area currently under intense exploration at GRS offices and warrants for greater, systematic investigation.

Future Areas of Study

This evaluation has only touched upon two aspects of the FfL program, the training of student coaches and a program evaluation oriented, 14-question survey. The limited research effort reported here does not take into account many different aspects regarding HIV/AIDS knowledge, ideas, and attitudes. To show that FfL is an effective HIV/AIDS education program, evaluation would need to be included in the expanded program, utilizing local talents and comparing results to other HIV/AIDS education programs in St. Lucia, as well as to other GRS programs throughout the world. To truly understand the effectiveness of the FfL program (or any HIV/AIDS education program), longitudinal studies should be undertaken that follow program participants to determine their overall health outcomes over time (Kaufman, 2008). Kaufman, 2008 argues, “since most adolescents are between the age of 12-14 when they graduate from GRS programs, such a longitudinal study would need to follow up with youth at least 4-6 years after graduation in order to see any medium or long term effects of GRS participation” (Kaufman, 2008: 143-144).

Over the years, GRS has flourished and grown. Program innovations including the GRS satellite programs and implementing partners have augmented the growth. For these programs to continue, it is important to keep people involved and passionate about the GRS program model. UVM has a unique niche within the GRS community. Students working on these projects are able to carry on the mission of GRS while at the same time completing a service learning course and receiving credit as part of their work.

This allows GRS to expand its reach worldwide, at virtually no cost to them, and very little cost to UVM as well.

This thesis has discussed the GRS model, has outlined the HIV/AIDS epidemic in the Caribbean and St. Lucia and facets regarding HIV/AIDS education in this region. The FfL interventions were presented and the methods used to study the FfL program were discussed. The study gathered data regarding baseline HIV/AIDS related knowledge and followed it up through a five-month follow up survey. It is important to note that the study did not measure behavior change. Qualitatively, the study added to the argument that the social learning theory that GRS employs is an effective means at reaching youth in HIV/AIDS education.

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Appendix A

Date _____

Organization _____

Site / Location _____

Age _____ Gender _____

Grassroot Soccer Survey

We would like to know more about you and what you know about HIV/AIDS. Read each of the statements below. If you agree with the statement, tick/check Agree. If you don't agree with the statement, tick/check Disagree. If are not sure if you agree or disagree, tick/check Not Sure. This quiz will only be used by Grassroot Soccer staff and will be kept private.

Example:	Agree	Disagree	Not Sure
HIV/AIDS is a problem in St. Lucia	√		

	Agree	Disagree	Not Sure
1. The most effective way to avoid HIV/AIDS is to abstain from sex (to not have sex at all).			
2. HIV is the same thing as AIDS.			
3. If I decide to have sex, using condoms correctly every time can help protect me from getting HIV/AIDS.			
4. I can avoid getting HIV/AIDS.			
5. If a relative became sick with HIV/AIDS, I would be willing to care for him or her in my own home.			
6. I can tell if someone has HIV/AIDS by looking at them.			
7. If I choose to have sex, there is a greater chance of getting HIV/AIDS if I have more than one sexual partner.			
8. Consuming alcohol and/or drugs increases the risk of getting HIV/AIDS.			
9. Unprotected sex is the most common way HIV/AIDS to spread			
10. You can get HIV/AIDS by hugging or kissing somebody with HIV/AIDS.			
11. HIV/AIDS virus is found in human blood			
12. There is a cure for HIV/AIDS.			
13. I can talk to my friends/peers about HIV/AIDS			
14. I can talk to my parents/family about HIV/AIDS			

Appendix B.

Grassroot Soccer In-depth Interview Questionnaire with GRS Coaches

Hello, and thank you for your time for sitting down with me today to discuss your involvement in the Grassroot Soccer/Football for Lives Program, I plan on asking you a series of open ended questions about the program so that I can get your feelings, thoughts, and issues that you believe are important. This will help us identify problems with the program, strengths of the program, and how we should address such issues. I first want to get to know a little about yourself.

How did you become interested in Grassroot Soccer/Football for Lives?
In particular, where did you first here about Grassroot Soccer/Football for Lives?

What is your overall impression of the Grassroot Soccer/Football for Lives program/curriculum?

Now lets talk about the training you have received or currently receiving in becoming a Grassroot Soccer/Football for Lives Coach,

Have you been through the program/curriculum program or are you currently receiving training the in the program/curriculum

What are the areas of strengths that you see?

What are the weaknesses that you see with the Grassroot Soccer/Football for Lives program?

Thinking back to the last question, what suggestions would you give for improvement, and on building up from the areas of strength that you identified?

Moving forward, here is a question that you can respond in anyway that makes sense to you: what differences do you think this HIV/AIDS education program will have on the local community we are working on in St. Lucia, Think broadly here, not only in the schools, or with the youth, but how do you see it effecting a community as a whole?

In your perspective, what is it like to be a part of a program like Grassroot Soccer/Football for Lives?

How interested are you in becoming a Grassroot Soccer/Football for Lives coach in the future?

Are there any other issues or concerns that you would like to discuss at this time?

Appendix C

Selected Games for First FfL Field Intervention

GRS Activity	Summary of Activity
1. Choices	A game in which participants move around within a marked field or space and a coach calls out a category such as favorite soccer team, or favorite color. The participants make choices and group themselves with those that like the same thing. This game discusses the theme of health decision making.
2. Find the Ball	A game in which participants stand shoulder to shoulder in two lines facing each other and pass a stone or ball representing HIV/AIDS behind their backs. Participants of each team try to guess who has the stone or ball on the opposing team, which represents HIV. Participants learn that you cannot tell who has HIV/AIDS by looking at somebody
3. My Supporters	A game in which participants stand in small circles with one participant that stands in the middle and falls and leans against the other participants who support them. Participants discuss discrimination and stigma against people living with HIV/AIDS and the importance of social support
4. Risk Field	A game in which participants dribble between cones representing risks in life that might lead to HIV/AIDS infection. Participants talk about consequences of contracting HIV on the individual, family, friends, and the larger community.