

AIDS in Brazil
The National Coordination for STD/AIDS: A Model for Success

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Introduction

Only twenty years have elapsed since the first cases of AIDS were identified. However, in this very short time span, the impact of the epidemic has been devastating. Almost sixty million people have been infected and just under twenty-two million have died. There are now more than thirty-six million victims of the disease who demand treatment (Serra 2001).

For over two decades, the world has been faced with a massive epidemic: AIDS. In Brazil, and in many countries, the AIDS epidemic began to spread rapidly and intervention was required to save lives. Developed by a combination of civic activism, political advocacy, and the production of generic medications, the Brazilian national AIDS program, A Coordenação Nacional de DST/AIDS (the National Coordination for STD/AIDS), has been called an exemplary model for other countries suffering from the AIDS epidemic:

Brazil has received much acclaim for its multifaceted national HIV/AIDS program...[which]... is widely recognized as one of the few success stories in the fight against AIDS, and many countries are now looking to Brazil to help control their own epidemics (“Brazil Offers Treatment Model” 2002).

The success of the program is apparent through the decrease in the number of AIDS related deaths and the number of people infected with HIV/AIDS. The effectiveness of the Brazilian AIDS program depends on several key factors: social and public health movements; political involvement and commitment; the availability of drugs; treatment and prevention programs, and, finally, funding.

The purpose of this study is to examine Brazil's response to the AIDS epidemic and attempt to answer the following questions: Is the National Coordination for STD/AIDS of Brazil truly a model for other countries? If so, in what ways has the Brazilian model been replicated? Did Brazil have the first AIDS program? Have the Brazilians copied aspects of other countries' programs? By first examining the Brazilian National Coordination for STD/AIDS and then reviewing the HIV/AIDS programs of other countries, the answers to these questions should surface.

Chapter 1 presents the history of AIDS in Brazil, from the debut of the disease to the introduction of policies regarding its control and the implementation of treatment and prevention programs. Chapter 2 discusses the structure and goals of the Brazilian National Coordination for STD/AIDS and provides a detailed description of its treatment and prevention programs. Chapter 3 describes AIDS programs of other countries, including Thailand, Uganda, Kenya, South Africa, and the United States and how their programs compare to Brazil's. The conclusion explains the questions above and offers ideas for further research.

Chapter 1: The History of AIDS in Brazil

Epidemiological History: The Spread of AIDS in Brazil

The Brazilian AIDS program has not always been a successful model for other countries. In fact, until recently, the effectiveness and success of the program had never been publicly acknowledged. The World Bank report states that the first case of AIDS appeared in Brazil in 1980 (World Bank 2002). The World Bank Organization also states that the reported number of people infected with AIDS climbed from "...550 in 1985 to close to 240,000 in mid-2002" (World Bank 2002). However, the total number of HIV cases in Brazil is estimated at 600,000 (ibid). In the beginning, Brazilians with AIDS and AIDS activists became involved in a struggle for assistance. As in many other countries, the AIDS epidemic in Brazil first appeared in homosexual males, but quickly expanded to include the female partners of bisexual AIDS victims, children, and drug users.

The number of people infected with AIDS through heterosexual contact increased to 44.3 percent in 2000, from only 9 percent in 1990. In 1986, only one in 17 AIDS cases occurred in women, but by 2000, the male-to-female ratio of new reported AIDS cases was 1.92:1 (USAID 2002).

Because of the changing demographics and feminization of the AIDS epidemic, more people began to realize that the disease could affect more than just homosexual males and that AIDS needed to be stabilized. The AIDS Program needed to be flexible enough to assist every victim.

The Creation of Civic AIDS Organizations

Because of the quickly spreading epidemic, AIDS victims required intervention and support; however, the reluctance of the government to create a program for AIDS patients stemmed from a fear of homosexuality and lack of funds. According to Richard Parker, AIDS appeared in the early 1980's primarily in men who had been involved in homosexual or bisexual activities, and also in hemophiliacs (Parker 2001). Richard Parker, an activist and expert in sexual movements and culture in Brazil, has conducted extensive studies on the dynamics of sexual cultures in Brazil in relation to the development of the National Coordination for STD/AIDS. According to Parker, the AIDS treatment and prevention programs would not be successful had civil society not fought for political support.

According to the Ford Foundation Report, after the first cases of AIDS were detected in Brazil in the early 1980's, civic activists initially founded non-governmental organizations to promote AIDS awareness and advocacy (Reardon 2002). In 1983, the first AIDS group was formed in conjunction with the pre-existing Institute of Health of the SES-SP (Secretario de Estado de Saúde- São Paulo) under the Division of Hansen's Disease (Parker 2001). The victims of Hansen's Disease, commonly known as leprosy, encountered the same difficulties as AIDS victims in the early 1980's: they were seen as social outcasts with a limited possibility of survival. To Brazilians in the early 1980's, AIDS and Hansen's were not merely illnesses but death sentences.

Even though the development of programs and social mobilization occurred because of a collective effort, one man is noted in Brazil for his efforts in stabilizing the AIDS epidemic: Herbet de Souza. Betinho, as de Souza is affectionately called, became

an influential political figure while Brazil was still under military regime. Throughout his life and in his years of exile, Betinho dedicated himself to analyzing poverty and social discrimination in Brazil (Bissio 1998). As a hemophiliac, Betinho had suffered from many illnesses transmitted through blood transfusions, and, in 1986, he became the first activist to publicly declare himself a victim of AIDS (ibid). Until his death in 1997, Betinho continued his search for equality and support for helpless Brazilians, including AIDS victims, and was eventually nominated for the Nobel Peace Prize.

While much of the National Coordination for STD/AIDS is attributed solely to political commitment, civil society was the first instigator of public health treatment and prevention programs for AIDS patients. In 1986, under the leadership of Betinho, AIDS activists established a non-governmental organization in Rio de Janeiro, referred to as ABIA, or the Brazilian Interdisciplinary AIDS Association (Reardon 2002). Around the same time, homosexual activists in São Paulo created another non-governmental organization, called GAPA (Grupo de Apoio e Prevenção de AIDS), to rally AIDS support. The organizations attempted to fashion a coalition between the community groups involved with Hansen's and political activists from the gay community (Parker 2000).

'Among activists, the fight against AIDS in Brazil was always articulated as a part of a broader campaign against social exclusion,' says Richard Parker, an anthropologist who was elected president of ABIA in 1998, soon after Betinho's death. 'It resonated with a range of social movements relating to gender, sexuality, poverty and class because it was seen as an integral step in constructing a truly open society' (Serra 2001).

Without the establishment of non-governmental organizations and the dedication of their members, legislation and funding would not exist for the Brazilian AIDS program.

The Politics of AIDS in Brazil

Although the initial founding of the National Coordination for STD/AIDS depended on social mobilization, the effectiveness and success of the program rested on political involvement and public policy changes. In the early 1980's, Brazil was in a unique political situation. Since a military coup in 1964, Brazil had been governed by a military regime. In 1985, José Sarney, the first president since the coup, was faced with the enormous task of re-democratizing Brazil (Rosenberg 2001). On one hand, the re-democratization process can impede public policy reforms; on the other hand, with a new government come new ideologies and a renewed feeling of hope in the government and in its people. In the 1980's and 1990's, Brazil was struggling to revive its degenerating public health system, which made propositions, such as an AIDS program, unlikely to pass. With political dedication and awareness of the gravity of the AIDS epidemic, however,

...[Brazil] found an unlikely ally in José Sarney [a conservative who led a promilitary party during the dictatorship], Brazil's first civilian president after the country emerged from military rule in 1985...Sarney proposed a law that guaranteed every AIDS patient state-of-the-art treatment. It passed. At the same time, Brazil was carrying out an aggressive AIDS prevention program, financed by the World Bank (Rosenberg 2001).

AIDS was concentrated mostly in southern Brazil, and by the mid to late 1980's, eleven state and municipal programs had been established in this region (Parker 2000). With the passing of Sarney's law in 1985, the government began to merge and create a network of the local programs to form a greater national AIDS program. In 1990, the new democratic government encountered difficulties in actualizing a national program. In

spite of efforts to consolidate the existing programs and establish a national conglomerate, new AIDS organizations were being created that made networking difficult.

Obstacles in Obtaining Drugs

While social mobilization was key to the development of the National Coordination for STD/AIDS, the acquisition and distribution of AIDS drugs was crucial for Brazil to uphold its promise of universal health care and also in treating those infected with HIV and/or AIDS. The acquisition of drugs was perhaps the greatest obstacle for Brazil to overcome and remains so for many countries. The success of the National Coordination for STD/AIDS is dependent on several factors, including the production of generic drugs and the implementation of treatment and prevention programs.

In 1988, Brazil adopted a new constitution in which, under Article 196, health care was declared an obligation of the state and a right of its people (Zarrilli 1). Fortunately, another law passed in 1991 that promised the distribution of AIDS treatment medications that would further decrease AIDS related deaths (Serra 2001). In 1996, President Fernando Henrique Cardoso promised free drugs to HIV/AIDS victims, and a Congressional Bill was passed that guaranteed free medical care and antiretroviral drugs to all Brazilians suffering from HIV/AIDS (Galvão 2002).

In addition to the Bill, Brazil introduced an amendment into its Industrial Property Law to allow for production of generic versions of brand-name ARV's. With the promise of free medication, the government now had to find the means in which to either fund the purchase of ARV's (antiretroviral medications) or manufacture generic forms of the

drugs. Producing generic forms of ARV's seemed like an easy solution to the AIDS epidemic, but pharmaceutical companies held patents on the drugs to restrict their reproduction. Article 68 under Chapter VIII ("Licenses") of the Law states that:

The patent owner shall be subject to compulsory licensing of his patent if he exercises his rights therein in an abusive manner, or if he uses it to abuse economic power according to the law in force, under the terms of an administrative or judicial decision (Clarke and Modet 9).

Article 68 also allows three years for a foreign company to begin manufacturing a drug in Brazil; if not, then Brazil, as stated in a separate clause, could import that drug.

Furthermore, Article 71 of the same chapter states that:

In cases of national emergency or of public interest, declared in a specific decision of the federal government, provided that the patent owner or his license do not satisfy such a need, a temporary non-exclusive compulsory license to exploit the patent may be granted ex-officio without prejudice of the rights of the owner of the patent (Clarke and Modet 10).

In amending its property laws, Brazil was trying to ease the production or acquisition of drugs because obtaining brand name drugs to fulfill the country's promise of free health care and treatment was economically unfeasible.

After negotiations with U.S. pharmaceutical companies failed to produce costs low enough to satisfy Brazilian Health Minister, Jose Serra, he declared on August 22, 2001, that Brazil would go ahead with local production of patented AIDS medicines. Legitimizing the action as stated in Article 71 of the Brazilian patent law by supporting the presidential decree of a national health emergency, Serra granted a compulsory license, for the production of [an AIDS drug] to [a] Brazilian pharmaceutical firm... (ibid).

Also, the demographics of the AIDS epidemic had changed since the 1980's; in the mid-1990's, those infected were primarily poor and could not afford the brand name drugs. U.S. pharmaceutical companies would have to produce their drugs in Brazil or the government could simply produce or import generic forms of the medications. Brazil did not adopt pharmaceutical patenting laws until 1996, therefore making it possible to reproduce generic forms of drugs that were not already patented in Brazil by this year. In 1997, Brazil began to produce and import AIDS drugs, and by 2000, was producing seven of the twelve AIDS drugs (Galvão 3), and by 2001, ten of the twelve ("Brazil fights for affordable drugs against HIV/AIDS" 5).

While the Brazilian government was trying to uphold its promise for free health care and medication, the U.S. claimed that Article 68 violated the Trade Related Aspects of Intellectual Property Rights (TRIPs) agreement of the World Trade Organization (Prizin). While Article 71 allows for the production of drugs under a national emergency, the U.S. disagreed with Article 68 because it would limit the companies to domestic production within Brazil, thus violating protection of property rights and patents according to TRIPs. Article 68 sparked debate between the U.S. and Brazil because the U.S. argued that Brazil was manipulating the Article in order to place an advantage on Brazilian domestic products over imports. However, Brazil later maintained that the Article "only takes effect when the patent holders abuse the rights and economic power of the patent to the detriment of others" (TED Reports 2002). The U.S. formally complained to the WTO that Brazil was misusing the Article, but Brazil continued the local production of AIDS drugs. On February 1, 2001, the U.S. requested that the WTO form a panel to decide on the legality of Article 68 (ibid). "In April, 2001, the United

Nations Human Rights Commission approved a resolution, proposed by the Brazilian delegation, establishing access to medical drugs during pandemics-such as AIDS-as a basic human right” (Galvão 3).

In the meantime, pharmaceutical companies began complaining and taking legal action to prevent Brazil from producing generic versions of their drugs because they would lose money. One company in particular, Merck, threatened to sue the Brazilian pharmaceutical company, Far Manguinhos, if it continued to manufacture Efavirenz, the generic form of a Merck drug (“Patients vs. Patients” 6). Brazil imported raw materials from India in order to research the production of Efavirens, one of the two drugs that the country had been unable to replicate. If pharmaceutical companies like Merck reduced the prices of the AIDS drugs, then Brazil could afford to buy them instead of producing their own versions. On March 7, 2001, Merck agreed to offer discounted drugs to Sub-Saharan African nations, but refused to offer the same lowered prices to Brazil because, according to Merck, Brazil was not a developing country (Darlington 1).

On June 25 of the same year, after much urging and complaints from NGO’s such as Oxfam and Doctors Without Borders, the U.S. withdrew its complaint and reached an agreement with Brazilian officials. Both countries decided that should compulsory licensing of a patent be deemed necessary, Brazil would enter into talks with the U.S. government prior to producing generic drugs (Pruzin). In November 2001, the WTO published a statement permitting compulsory licensing in the case of national or public health emergencies (Galvão 3), thus supporting Brazil’s actions. Following the decision of the U.S., pharmaceutical companies in return stopped threatening and reached agreements with Brazil to produce discounted drugs. Drugs are vital in reducing the

number of AIDS related deaths; however, producing or buying drugs requires a large budget, and even if the prices are reduced, drugs are still cheaper when locally manufactured or imported from generic companies abroad.

At the assumed price of approximately US\$1000 per person per year, it would have cost the government US\$700 million, or nearly three times its national drugs budget, to treat 700,000 people – a similar number to those now receiving treatment in Brazil. On the other hand, if the government were able to use compulsory licensing to gain access to the generic offer of US\$295 per person per year recently offered by Aurobindo, the Indian-based generic company, it could treat the same 700,000 people at a cost of US\$206 million, or the equivalent of 80 per cent of its drugs budget (ibid).

While the pharmaceutical companies' reductions may seem generous, AIDS-stricken countries need to import or produce generics in order to maximize the quantity of drugs available to HIV/AIDS patients. Local production of ARV's is crucial to the success of the National Coordination for STD/AIDS because the Brazilian government would not be able to afford the drugs at foreign pharmaceutical companies' prices.

Chapter 2: The Framework of a Successful Program

A Unified Public Health System

Before the idea of a national program was feasible, the Brazilian Health System needed to undergo changes. Because of the political transitions taking place in Brazil in the 1980's, the government was more open to exploring policy reformation on several issues. The Health Reform Movement had already begun in the 1970's and aided the civic groups in jumpstarting the aforementioned AIDS organizations. In 1988, the government established the Unified Health System (SUS) with the purpose of decentralizing the public health system by creating various levels at regional and local levels. The fundamental idea behind the health reforms was to allow universal care to all persons who required medical attention (Lobatto 2000). After the structure of the health care system was modified, the National Coordination for STD/AIDS was able to be more effective and efficient in meeting its objectives of treatment, prevention, and drug distribution (Bermudez 2001).

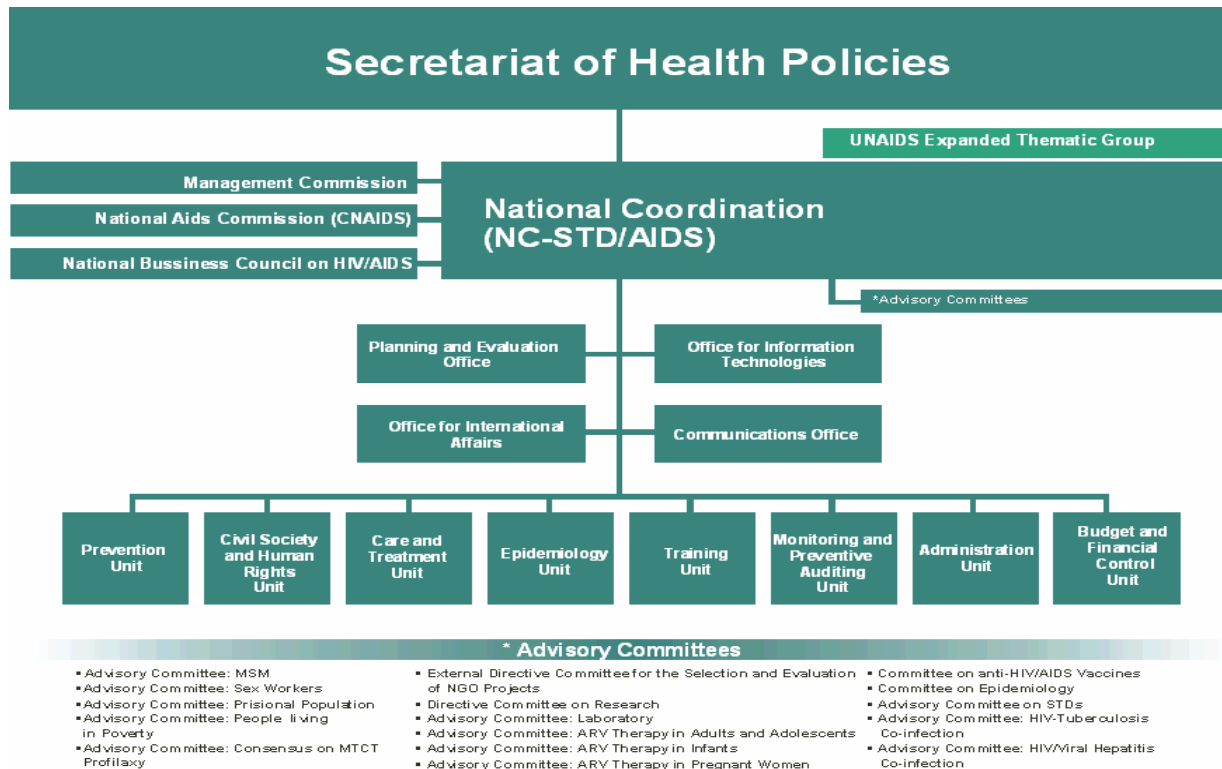
As one of the primary financial sponsors of the AIDS Coordination, the World Bank Organization, in conjunction with the Brazilian government and other sponsors, established guidelines and goals for a successful program. The first round of loans and programs is referred to as AIDS I and took place from 1994 to 1998. Even though AIDS I was successful enough for the World Bank Group to grant more loans for AIDS II from 1998 to 2002, the organization and the Brazilian government studied the failures and successes of AIDS I to improve the next program (World Bank 2002). The program needed modifications to better fit the changing demographics of the infected population.

In the beginning of the AIDS epidemic in Brazil, most of the AIDS victims were homosexual, mostly upper class males, but as the number of cases increased, the types of groups that were contracting the virus became more varied. AIDS I focused on the treatment of people already infected with AIDS, but AIDS II was designed to emphasize preventative measures and to improve the information system (ibid). AIDS I allowed Brazilian officials to see that the program needed a database of information collected about the patients. The more they recorded about examinations, opportunistic illnesses, and other information, the more they could tailor the existing and future programs to the AIDS population. Finally, after the completion of AIDS I, the government sought to further decentralize the National Coordination for STD/AIDS and believed that by granting more power to local and state authorities and increasing the number of AIDS centers, AIDS and sexually transmitted disease (STD) prevention would be more effective.

Structure of the National Program

The National Coordination for STD/AIDS consists of a complex network of organizations, associations, and agencies that work together under an inclusive framework. As shown in Figure 1, “Figure 1: Structure of the Brazilian National Coordination for STD/AIDS” the Program is divided into twelve units, each with a specific duty. The system is very structured, and to function properly, communication is necessary.

Figure 1: Structure of the Brazilian National Coordination for STD/AIDS



Source: <http://www.aids.gov.br/>

Several systems were created under the National Program to ensure that the right AIDS drugs were distributed to the right patients. First, the Program needed locations where AIDS patients could receive their ARV's. The sites, called ADDU's (AIDS Drugs Dispensing Units), are located within medical clinics (Galvão 2002). A patient must first be registered in the system in order to receive treatment.

Under AIDS II, in addition to ADDU's, Brazil also implemented two computer systems: one to track the drug prescriptions (SICLOM) and another to control laboratory examinations (SISCEL)(ibid). The AIDS program relies heavily on all three systems

because without them, accurate monitoring of each patient's progress would be impossible. The systems prevent doctors from prescribing drugs that could potentially be hazardous to a patient's health. The systems are also important in monitoring the epidemiological behavior of HIV and AIDS in Brazil, the progress of the patients, and the medications they are taking.

SISCEL, or Sistema de Controle de Exames Laboratoriais (Laboratory Exam Control System), and SICLOM, Sistema de Controle de Logística de Medicamentos (Medicine Logistics Control System) “constitute part of a national system to ensure the distribution of medicines, make it possible to track the patients, control the dispensation of drugs, and allow access to the results of lab exams” (aids.gov.br). The National Coordination's web site provides detailed information about the systems in Portuguese. Registration of every patient within the systems is required in order for the patients to receive drugs. Once the patients are registered, they receive a green card that resembles a credit or identification card. The cards have magnetic stripes that allow the systems to store information on every registered patient.

The Program of Alternative Assistance under the Ministry of Health conducts examinations for health professionals as part of a training program. The professionals are trained in pre- and post- HIV testing and also on how to operate the SISCEL and SICLOM computer systems. Every operator is also trained in confidentiality measures to ensure that the patients' identities remain virtually unknown except to trained health professionals.

The technology of the Brazilian National Coordination for STD/AIDS allows for the behavior of the AIDS epidemic to be accurately recorded and closely analyzed.

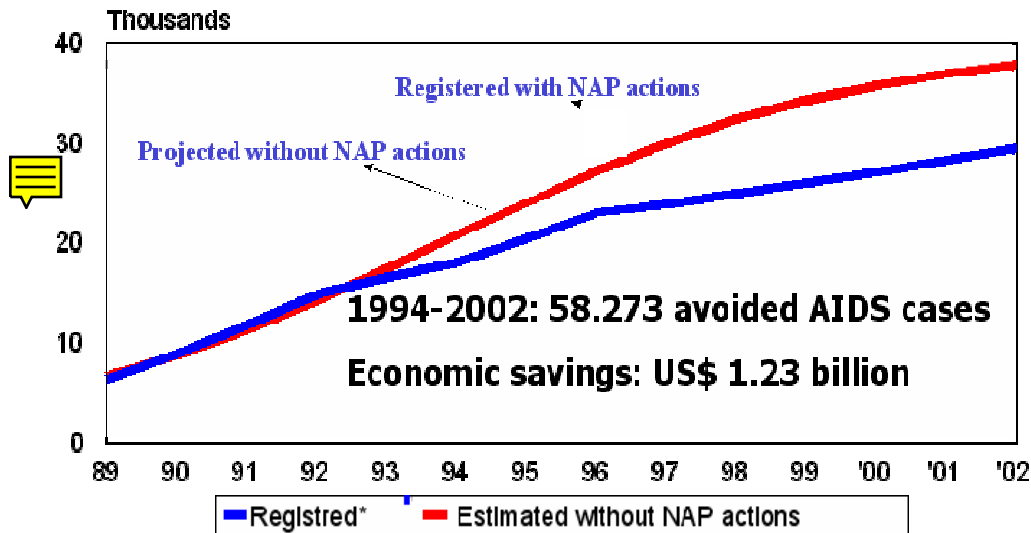
Tracking the epidemic is important because any significant changes in the infected population require that the prevention methods be modified. For example, because of the demographic change of the virus from homosexual men to married women in the 1990's, prevention programs recognized that they should be targeting women more than they were in the past. The data systems permit the control of HIV/AIDS and further its prevention.

Treatment and Prevention Programs

The treatment and prevention programs under the National Coordination for STD/AIDS constitute another key element in the success of the program. What started as a few scattered AIDS organizations in São Paulo and Rio de Janeiro has flourished into a network of over 600 groups (USAID). While the treatment of people infected with AIDS and the acquisition of drugs was a priority, preventing the spread of the disease was also important. In 1994, the World Bank Group projected that by 2000 the number of Brazilians infected with HIV would have risen to 1.2 million. But in actuality, the number only reached half that much (World Bank 2002, Buckley 2000). Chart 1, "Number of Cases (registered and estimated) Considering the Actions of the National AIDS Program," indicates the decline in HIV/AIDS cases.

Chart 1

Number of AIDS cases (registered and estimated) considering the actions of National AIDS Program Brazil, 1989 to 2002



Estimated cases after 1993 using real trends

Source: <http://www.aegis.com/conferences/14wac/MoOrB1098.>

However, by combining the number of patients that are actually registered with an estimated number, the chart does not provide accurate information. Chart 1 would be much more effective and credible if the two sets of data were separated into registered cases and estimated cases. Also, the chart fails to indicate if AIDS includes those infected with HIV. Either way, however, the National Coordination for STD/AIDS was successful in reducing HIV/AIDS transmission. In light of the stabilization of the growth of HIV/AIDS cases, the groups could focus their efforts on AIDS and STD prevention and awareness.

Treatment programs exist for every age group and gender, but because women now occupy a larger percentage of the Brazilian AIDS population, they have become one

of the new targets of AIDS organizations at local and national levels. For example, A Rede Nacional de Pessoas Vivendo com HIV/AIDS (RNDP+) provides information, and support through group meetings for those infected with the virus. The organization's web site now provides a link for women that are HIV positive in addition to separate weekly meetings in Rio de Janeiro. Another AIDS organization, Grupo Pela Vidda, provides the same activities as RNDP+ as well as theatrical performances, literature and even music to promote sexual health and the use of condoms.

Although associations like RNDP+ are important for the psychological well being of AIDS victims, other organizations offer basic medical assistance that is also vital to the success of the National Coordination for STD/AIDS. Working through clinics and hospitals, trained volunteers and professionals ensure that patients understand their illness and other necessities, such as the schedule for taking their daily dosages of drugs.

A second new target of the National Program is the infected population living in poverty. At the beginning of the epidemic in the 1980's, AIDS victims were characterized by being homosexual and of the upper class. In the 1990's and today, the victims are of the extreme lower class (Parker 2000). Most victims cannot afford food; nevertheless, because of the National Program, they can receive medical aid. AIDS groups, like Pela Vidda and RNDP+, attempt to reach every member of society, including sex workers and drug users. They encourage sex workers to inform clients about AIDS and STD's if they suspect that the clients are infected. Under AIDS II, the government and NGO affiliates also founded orphanages and boys and girls homes specifically for children with AIDS; homes for adults infected with the virus; and also homes for young

mothers or pregnant women with AIDS. Under the new program, every possible type of AIDS victim has the opportunity to receive any type of help the individual might require.

Chapter 3: The Global Importance of the Brazilian Model

Many countries are experiencing the spread of the AIDS epidemic and some are trying to emulate Brazil's AIDS program. The Brazilian program was established largely because of civic and political support. In several African countries, such as Kenya, hostile leadership has hindered the development of AIDS programs. The Brazilian program is unique in that the government and the people, along with external international allies, have made a collective effort to stabilizing the AIDS epidemic out of willingness and determination.

The one problem that is common to all the countries that are battling HIV/AIDS is the availability of drugs. After overcoming political and social obstacles in developing an AIDS program, numerous countries sought generic ARV's and looked towards Brazil for help. Thailand, South Africa, and Indonesia all experienced the same difficulty with the World Trade Organization and drug patents that occurred in Brazil. Just as Brazil stated, these countries believed that in a time of a national health emergency, AIDS victims should not be denied treatment in the form of ARV's. Because the U.S. argued in favor of the WTO's guidelines and regulations regarding patents, the countries suffering from the AIDS epidemic began to pursue generic drug production and importation.

Although President George W. Bush promised fifteen billion dollars over the course of five years to help with the AIDS epidemic in Africa, the U.S. continues to side with the WTO and their patent restrictions. Therefore, while helpful, the money from the

U.S. would not be able to cover the cost of drugs unless they are the generic versions produced in Brazil, Thailand, India, or other countries with similar capabilities.

Chart 2 below, “Characteristics of HIV/AIDS Programs in Selected Countries,” is a compilation of several resources because no single source provided all the information to complete the chart, and even then some of the information is not available.

Chart 2: Characteristics of HIV/AIDS Programs in Selected Countries

	Brazil	Thailand	Uganda	Cuba	South Africa	Kenya	U.S.
1ST Case Found	1980	1984	1982	1986	1982	1986	1981
National Program Established	1987	1987	1986	1983	1992	1999	
Drug Production	√	√		√			√
Compulsory Licensing	√	√			√		
Type of Government	Federative Republic	Constitutional Monarchy	Republic	Communist State	Republic	Republic	Republic
Data Collection System	√	√		√			√
NGO Involvement	√	√	√	√	√	√	√
Education	√	√	√	√	√	√	√
Confidentiality	√	√	√	√	?	?	√
Free Universal Health Care	√				√		

Most of the information is derived from two main sources: the “Summary Booklet of Best Practices,” published by the UN, and “Effective Strategies for Preventing HIV/AIDS in Developing Countries: Lessons from Brazil, Senegal, Thailand, and

Uganda” (referenced as Forster-Rothbart). The “Summary Booklet” is a compilation of descriptions of individual AIDS-related projects in several countries. The “Effective Strategies” document compares the countries as indicated in the title regionally in terms of approaches and policies made to combat the HIV/AIDS epidemic. Information not found in these two sources comes from various other resources as cited in the country profiles starting on the next page.

Chart 2 summarizes a comparison of the components of the Brazilian program to the countries’ programs. The chart includes the characteristics of the Brazilian program that have been most important to its success. There are question marks under Confidentiality for Kenya and South Africa because while patient confidentiality is assumed, no source confirmed that the countries required it. Compulsory License refers to whether or not the countries have actually introduced the option in their legislation. Although many of the countries indicate no free health care, HIV/AIDS patients in many cases have access to free medication and treatment because external support. Also, Uganda, South Africa, and Kenya may not have data collection systems in place; however, NGO’s and other governmental organizations collect evidence and compose reports to monitor the epidemic. Finally, even though some countries may not produce drugs, as aforementioned, all the countries are importing or receiving drugs from other sources.

Thailand

Much like Brazil, Thailand has been successful in establishing and implementing a national AIDS program. As demonstrated in Chart 2, the first case of AIDS was

identified in Thailand in 1984, and the National AIDS Prevention and Control Program was founded in 1987. Like Brazil, one of the early goals of the Program was to incorporate all areas of society, including national government agencies and international partners in both public and private sectors (Forster-Rothbart 10).

At 200, the number of NGO's involved with the Thai National Program is far lower than that of Brazil, however, the groups are effective. The goal of NGO's in their prevention efforts is primarily to destigmatize HIV/AIDS (Forster-Rothbart 11). Because prostitution is one of the most available job resources for women and young girls and the highest rate of HIV infection is in sex workers, prevention efforts attempt to encourage Thai females to pursue other means of income. According to the "Summary Booklet of Best Practices," for example, the Thai Women of Tomorrow Project, founded in 1992, seeks to provide girls with education to protect them prostitution. The organization provides scholarships to 1,000 girls to complete a sixth grade education and also provides them with vocational and technical skills so that prostitution is not their only job option. Furthermore, the Project places the girls into safer jobs, such as secretarial positions. Not only does this particular project help to reduce the rate of potential HIV infection but the participants also receive training that will help them economically and socially.

On a national level, the Thai National Program also promotes condom use and began the 100% Condom Program to encourage condom use in 1991 (Forster-Rothbart 11). Sex education is integrated into primary and secondary schools, and Thailand has also produced several media-based campaigns to promote safe sex practices.

In terms of treatment, the Thai Program, like its Brazilian counterpart, also offers free, confidential testing centers and Thailand, again like Brazil, produces, imports, and

exports generic ARV's. Thailand also utilizes three systems to track HIV and AIDS. The first system, the “‘sentinel surveillance’ system has been in place since the early 1990’s, tracking the epidemic and persuading national policymakers to devote money to curbing it” (Forster-Rothbart 11). The second system records the HIV prevalence for soldiers of the Royal Thai Army, and the third system collects data from annual federal reports.

Uganda

While the Brazilian and Thai programs are good examples for other countries to follow, Uganda is especially important in a regional context because the success of the Ugandan AIDS Program shows that even poor, developing, third-world countries can establish an effective HIV/AIDS program. The Ugandan National AIDS Control Program, established in 1986, was decentralized in 1992 in order to reach more communities on a local level (Forster-Rothbart 18). “Uganda set three main behavior change goals: increased condom use, decreased number of sexual partners, and delayed sexual debut [abstinence]” (Forster-Rothbart 19). Uganda was also the first country to introduce counseling and testing centers in Africa.

An important aspect of the Ugandan AIDS program is the incorporation and participation of religious groups in prevention efforts. For example, in 1992, the Islamic Medical Association of Uganda (IMAU) founded a program with the purpose of encouraging condom use despite religious controversy and promoting education by spiritual and religious leaders (“Summary Booklet of Best Practices” 167-8). The

Ugandan Program also uses radio and television ads and programs to encourage safe sex or abstinence.

Cuba

Cuba prepared for the AIDS epidemic before HIV/AIDS even arrived on the island by creating the National Commission on AIDS in 1983 (Barksdale 2). The first case was not identified until 1986, but screening had already been implemented in 1985. Cuba handled its infected population differently from other countries: prior to 1994, every Cuban who tested positive for HIV was sent into an eight-week, mandatory quarantine to educate those infected about their disease and receive treatment (Cookson 2003). HIV/AIDS patients now have the option of living in the sanatoriums and many of the inhabitants also volunteer in treatment and prevention efforts.

Even though education is an important part of an AIDS program, removing HIV positive or seropositive people from society does not create an inclusive environment for them. AIDS education and awareness should be available or mandatory for every infected or uninfected member of society, a goal that the Brazilian program strives to attain.

Cuba produces several of the ARV's and is discussing trade agreements for drug imports with other countries, including South Africa, that are affected by HIV/AIDS. Systems similar to those in Thailand and Brazil are used in Cuba to monitor the epidemic and drug distribution. The Cuban Program supports safe sex practices through condoms, although the U.S. trade embargo limits the amount of condoms that Cuba imports. In

Cuba, HIV/AIDS spreads mostly through sexual transmission; if Cuba had access to more condoms, the country could focus more on prevention efforts.

South Africa

The Sub-Saharan country of South Africa has been one of the hardest hit by the AIDS epidemic. Brazil and Cuba quickly recognized that AIDS was a problem, whereas in other countries, such as South Africa, the leaders waited, costing more lives and leaving more people infected. President Mbeki of South Africa refused to acknowledge that HIV caused AIDS, so for many years treatment was not an option in the eyes of the government. According to an article from South Africa's Health Systems Trust, Brazil offered to provide South Africa with ARV's as early as 2000, but South Africa was reluctant to respond to the offer. Treating AIDS would signify that HIV caused AIDS, and no one would contradict Mbeki (Rosenberg 2001). Now, however, South Africa acknowledges that HIV does in fact cause AIDS and the government has developed a program similar to the Brazilian model that focuses primarily on treatment of those infected and emphasizes prevention for South Africans who are not yet infected with the virus. NGO's and community based organizations (CBO's) conduct education programs to reach South Africans at local, grassroots levels. For example, Tateni Home Care Services was founded in 1995, by a group of nurses and trained workers that provides "...home-based care that is affordable, accessible, equitable, and efficient" ("Summary of Best Practices" 94).

Many NGO's started negotiating the sale and exportation of generic ARV's in 2001. Doctors Without Borders (doctorswithoutborders.org 2002), for example, signed

an agreement with Brazil's National Coordination for STD/AIDS to provide drugs to South Africa through the latter's Treatment Action Campaign in May of 2001 (ibid). In January of 2002, Thailand offered to provide drug production technology to South Africa and all African nations free of charge ("Thai Strategy for Generic Drugs to Africa" 2002). If South Africa continues to import Brazilian ARV's and if the country implements a drug distribution program similar to that of Brazil and Thailand, then many AIDS related deaths and opportunistic diseases will be averted.

The outcome of the U.S.-Brazilian controversy surrounding Brazilian industrial policies and generic drug production opened the door for other countries, such as South Africa and Kenya, to introduce similar policies into their own legislation in order to facilitate the acquisition of antiretrovirals for HIV/AIDS victims. In 1997, when South Africa introduced its Medicines Act, the Sub-Saharan country experienced that same problems that Brazil had encountered with the pharmaceutical companies. Thirty-nine pharmaceutical companies filed suit against South Africa in an attempt to stop the government from producing generic drugs ("South Africa Vs. the Drug Giants" 2001). The case was eventually withdrawn when the companies decided to offer their drugs to several African countries at the price that they deemed the lowest possible that they could offer.

South Africa could manufacture generic drugs but has not yet implemented a program to do so. However, according to the United Nations Integrated Regional Information Networks, as of April 2003, the South African government is slowly making steps towards manufacturing drugs and increasing the amount of drugs available to its people. Thailand and Brazil have offered to supply African nations with the technology

and resources to start manufacturing drugs in Africa, and Brazil is discussing the construction of several laboratories in Africa.

Kenya

Although the first case of AIDS was identified in Kenya in 1986, the government did not launch the National AIDS Control Council until 1999. President Daniel Arap Moi recently decided to allow condoms as a method of STD prevention and in the past denied that HIV and AIDS were problematic (Rosenberg 2001). Only after he “...publicly endorsed condom use...”(Forster-Rothbart 20) did the government become more involved in the fight against AIDS. According to the same source, AIDS education was not implemented in schools until 2000.

While the AIDS Program in Kenya has been slow to develop, NGO’s have been involved in community outreach. For example, the Summary Booklet cites the Diocese of Kitui HIV/AIDS Programme as a Best Practice. The Diocese founded the program in 1992 for the purpose of providing counseling, testing, and support along with education for HIV/AIDS victims. The directors of the Kitui program cite lack of education and national coordination as the main obstacles of the program. Overall, the Kenyan AIDS Program needs to decentralize their program and look to Brazil, Uganda, and Thailand for help. If the government created stronger ties with NGO’s and international interests, the country would have a better chance of receiving aid, for instance, from the United Nations. Certain cultural factors are also presenting obstacles for HIV/AIDS prevention for Kenyans because some Christians and Muslims do not condone the use of condoms.

United States

Because the United States has no national program, one of the best resources is the Center for Disease Control web site (www.cdc.org). The site offers information about every aspect of the HIV/AIDS epidemic in the U.S., including policies, prevention, treatment, and statistics. *The Morbidity and Mortality Weekly Report (MMWR)* began publishing articles on HIV/AIDS in the U.S. in 1981, and states that the first case was identified in June 1981. The web site also states that HIV/AIDS infection rates have been growing by 40,000 new cases every year since 1997. While finding consolidated information on the current status of drug therapy and prevention in the U.S. is difficult, CDC describes in its latest issue of *MMWR* that a new program will be implemented in 2004 to cater to the changing demographics of HIV/AIDS in the U.S. CDC coordinates with state and local health departments on prevention and testing efforts.

There are several prevention and education programs in the U.S. For instance, the University of Connecticut established a program in conjunction with high school teachers and students "...to increase condom use among sexually active high school students, and to encourage abstinence among those students not already sexually active" ("Summary Booklet of Best Practices" 67). While the United States has never developed a national AIDS program, programs at local and regional levels have been effective in combating HIV, AIDS, and STD's. However, the U.S. could greatly benefit from universal health care and wider AIDS and STD campaigning in order to more effectively contain the epidemic.

Conclusion

While the Brazilian program has not replicated other countries' programs, Brazil's program is being copied. The National Coordination for STD/AIDS of Brazil has become a successful model for other countries because of its holistic system of civic and political support and also because of the generic production and distribution of AIDS medications. Even though the HIV/AIDS epidemic seemed overwhelming, the solution to the disease's problematic growth was simple: inhibit further growth and treat the people who were already infected. The determination of Brazilian activists and the intricate national framework have allowed the AIDS Program to provide information on preventative measures for AIDS and STD's and to reduce the number of AIDS related deaths and diseases through prevention. The local and regional programs have changed the stigma traditionally associated with the AIDS epidemic from one of fear to one of precaution.

AIDS victims no longer fear the social ramifications of the virus, but proactively participate in preventing more Brazilians from transmitting and receiving the virus. Public policy changes and the promise of free, universal care combined with the drug distribution system guarantee that the amount of AIDS cases and seropositive patients will only continue to decline if the current system is maintained. Ideas for future study include the role of the media in HIV, AIDS, and STD prevention; the role of religious groups in the struggle with AIDS, and the relationship of migration to the growth of the AIDS epidemic.

From the Brazilian model stemmed a transnational movement to assist people infected with AIDS and to prevent the further spread of the virus. Although several countries have been able to stabilize the epidemic, if nations such as South Africa persist in their pursuit of low-cost ARV's and if a stable distribution program is created through Brazilian and Thai technologies, then in a few years, the epidemic will be more controlled. If the epidemic is brought under control, then AIDS will possibly desist in being the leading cause of death worldwide. The Brazilian model indicates that education, awareness, and control are possible even in the most poverty-stricken areas. Brazil has shown the world that any country, regardless of political and economic instability, can overcome crises with civic and governmental cooperation and a stable network.

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