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Socio-cultural Conceptions and HIV-related TB among Haitian Immigrants in Broward County, Florida: A Brief Historical Insight, 1995-2002

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Abstract

This study deals with tuberculosis (TB), human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS) in Broward County, South Florida. Theoretically, it demonstrates the existing co-infection between TB and HIV that provokes HIV-related TB or AIDS. Additionally, it indicates that AIDS is provoked by HIV co-infection with all opportunistic infections. Nine (9) qualitative interviews and one focus group conducted with 12 Haitian patients and TB control program workers at Fort Lauderdale Health Care Center allowed to understand the connection between TB and HIV, and the patients' socio-cultural conceptions about HIV-related TB. Then, the study reveals that the prevalence of TB and HIV-related TB has every year a dramatic increase among foreign-born individuals including Haitian residents. To determine this prevalence, the Broward County Health Department charts of 778 reported TB and HIV co-infection cases for the last 6 years were analyzed along with the qualitative interviews. Finally, the study shows that the indicated prevalence is due to both Haitian immigrants' socio-cultural conceptions and reactions vis-à-vis the TB screening, prevention measures, and treatment.

Keywords: TB, HIV-related TB, AIDS, Transmission, Socio-cultural Conceptions, DOT, MDR

1. Introduction

Today, it is almost impossible to diagnose a tuberculosis (TB) patient unless human immunodeficiency (HIV) infection is taken into account. In the United States, tuberculosis is considered as the most opportunistic infection to HIV. However, before the 1930's, tuberculosis taken alone was so rampant in the United States that it was the leading cause of death. At that time, very little was known about how the disease was spread and how best to treat it. People infected with TB were isolated from their families in Sanatoriums which represented the main thrust of the nation's fight against this disease (U.S. Department of Health, Education, and Welfare [DHEW], 1974).

Between 1940's and 1970's, DHEW (1974) reported that through many efforts of researchers, physicians, and public health officials, tuberculosis had been brought under control. Improvements in living conditions and the introduction of effective drug therapy have led to a dramatic and steady decline in tuberculosis deaths for this period. This improvement created the reason for closing the doors of many tuberculosis sanatoriums. And at the end of its report, DHEW had yet announced the swan song of tuberculosis in these terms: "Not so many years ago, tuberculosis was considered a fatal disease. Today [by 1974], there is hope for a long and productive life for the individual patient." Then, continued DHEW: "As a result of rapid research advances, there is also hope that tuberculosis can be one day virtually eradicated in the United States, and eventually, in the world."

During the 1980's, however, there was a recurrence of TB in the United States, with the apparition of the HIV/AIDS infection. Thus, in 1986, after 3 decades of steadily-decreasing tuberculosis morbidity, annual tuberculosis morbidity in the US increased. The increase occurred mainly in geographic areas and demographic groups with large numbers of AIDS cases, which suggested that the HIV epidemic had begun to influence tuberculosis morbidity (CDC, 1991).

Human Immunodeficiency Virus (HIV), that provokes acquired immunodeficiency syndrome (AIDS), infects more than 40,000 people of all ages in United States every year. From 1981 through 2000, more than 688,000 Americans were diagnosed with AIDS. According to the Center for Disease Control (CDC, 1994a), between 1985 and 1993, the number of new TB cases which increased by 14% – from 22,000 to 25,313 – first resulted from HIV infection. The states of New York, California, Florida, and Texas which perceived the highest rate of HIV/AIDS, counted more people infected with TB within the country. In fact, data (US Census Bureau, 2000) show that in 1998, while 8,714 AIDS cases were reported for New York, 5,654 for California, 5,448 for Florida, and 3,967 for Texas, respectively 2,000, 3,852, 1,302 and 1,820 tuberculosis cases were diagnosed in those states. In California alone, between 1988 and 1994, TB cases have increased about 51%.

This research, on a restrictive view, focuses on foreign-born individuals including Haitians particularly in Broward County, South Florida. Most of them are refugees or asylum seekers who have less than five years in the county. They span the Florida's borders without undergoing a health assessment overseas. They are not considered as those who were born or came legally to the United States since they have no medical records either here or in the American Embassy in Port-au-Prince, Haiti. Just here in Florida they eventually recognize they have the disease when their health condition worsens or they get tested for the infectious diseases to complete their file with immigration (INS) for permanent residence. Their names are counted every year among new reported TB cases or HIV-related TB cases for the county. Statistical data show that a high HIV-related TB prevalence rate in this population. Data for 1999, for example, reported that 56% of TB cases were among foreign-born individuals including 73% of Haitians.

Accordingly, we were asking a couple of questions like Why is the prevalence of HIV-related TB high among foreign-born Haitians in Broward County, South Florida? What is the role played by the Haitian socio-cultural conceptions in the spread of tuberculosis in Broward County, South Florida?

This research attempted to show the role play the Haitian socio-cultural conceptions in the TB transmission or spread and in the treatment regimens among Haitian immigrants in Broward County. Prior to focusing on a review of literature and our research findings, a background of TB, HIV, and AIDS, and how TB and HIV/AIDS are related to each other, is provided below.

2. Background of the diseases

From 1981 to 2001, after 20 years of HIV/AIDS appearance (CDC, 2001; Keiser Family Foundation, 2001), it seems that lots of people were unable to make a difference between HIV and AIDS. Then, in 2002 four students in a PC Computer Lab at one of the universities of South Florida asked us to differentiate HIV and AIDS while we were working on the present research. That is the reason why prior to presenting a relative review of literature,

a background of those diseases including TB is first given and also provides a part of the theoretical framework to this study.

Theoretically, this section explains TB, HIV, and AIDS. The background of each one is presented separately. At the end of the section, the connection between TB and HIV will be shown since the research thoroughly relies on HIV-related TB.

2.1 Tuberculosis (TB)

As Helman (1998) points out, tuberculosis (TB) is the most serious of the more chronic respiratory diseases. “Every year, an estimated 8 million cases of TB occur world-wide, as well as about 3 million deaths from the disease” (Helman, 1998: 367). Tuberculosis is caused by a germ called *Mycobacterium tuberculosis*. As the etiologic agent, reveals the CDC (1991: 41), *Mycobacterium tuberculosis* is carried through the air in infectious droplet nuclei (small airborne particles less than 5 microns in size) which are produced when persons with tuberculosis of the lung or larynx sneeze, cough, speak, or sing.

Tuberculosis has two different manifestations. In a TB guide for adults and adolescents with HIV, CDC (1991) indicates that “TB most often affects the lungs, but TB germs can infect any part of the body. TB may be latent or active TB.” Since latent means in medical terminology, a disease that does not present visible symptoms, therefore, latent TB germs are seen as remaining in the person’s body but are not causing illness. In other words, a person with latent TB has no symptoms and cannot transmit TB to others.

Generally, TB is spread from one person to another through the air. When persons repeatedly breathe air contaminated by an infectious patient, they may become infected with the tubercle bacillus or with tiny, moist drops that contain TB germs that are sent through the air. Normally, persons at highest risk of acquiring infection with tubercle bacilli are close contacts – those living in the same household with the infected person, or close friends and co-workers who daily breathe the potentially infectious air from a person with undiagnosed or untreated pulmonary tuberculosis (CDC, 1991).

The tubercle bacillus, the organism that causes TB disease, can be traced as far as 5000 BC, when archeologists found evidence in human bones of the existence of TB. Evidence was found in ancient Egyptian mummies which show deformities consistent with TB disease. Paleontologists have concluded that the disease must have been prevalent in that part of the civilized World (CDC, 2000). Between 4000 and 350 BC, other evidence showed that TB existed in China, India, and Greece. Later, during the medieval years, the TB epidemic was called the « Great White Plague » in Europe.

In 1882, the same year, TB was killing one in seven people in Europe and America Robert Koch, a German biologist, discovered the organism that caused TB. “The organism was called tubercle bacillus because rounded bodies (tubercles) occurred in the diseased tissue and were characteristic of the disease” (CDC, 2000: 82). Dr. Koch tried but failed to find a treatment to TB. Calmette, a French bacteriologist with the help of Guerin, used specific culture media to lower the virulence of the bovine TB bacterium, thus creating the basis for the BCG vaccine in widespread use today.

In the United States, with the use of the BCG vaccine and the anti-TB antibiotic, *streptomycin*, and with the opening of at least 700 sanatoriums by 1938, an intense TB control program took place, resulting in a decrease in the TB death rate from 188 per 100,000 in 1904 to 9.3 per 100,000 in 1984. However, as stated earlier, beginning 1985, because of the connection between TB and HIV, ‘the number of TB cases began increasing and continued to rise through 1992.’ But, in the developing countries, where ‘malnutrition exacerbates the course of the disease,’ the increase of TB cases was steeper. Today, there are some efficient drugs such as rifampin, ethambutol, isoniazid, capreomycin, ofloxacin, and pyrazinamide that can help fighting the disease. According to the treatment regimens, these drugs should be administrated as directly observed therapy (DOT).

2.2 Human Immunodeficiency Virus (HIV)

Called *le mal du siècle* which is interpreted as “the sickness of the century” in Farmer’s book (1992:101): *AIDS and Accusation*, HIV remains an enigma thus far. Accordingly, Fleming et al. (2000) pointed out that despite steady advances in prevention science and medical treatment to improve survival among infected persons, HIV remains a major public health threat in United States. Since 1981, more than 800,000 Americans have had HIV and more than 40,000 new cases are reported every year ((Keiser Family Foundation, 2001). A special report published in South Florida Sun-Sentinel (2001), with up-to-date data indicated that 850,000 people in United States (Population: 276,090,000), including 47,305 in Florida (Population: 15,982,378), are currently infected with HIV.

Human Immunodeficiency Virus (HIV), once entered one’s body through blood, semen or vaginal secretions, ‘weakens and depletes the immune system,’ the white blood cells that fight germs. One reference shows that the virus ‘attaches itself to and destroys white blood cells (CD4 lymphocytes, also known as helper T-cells), an essential component of the immune system.’

Meanwhile, another reference adds that after the virus attaches to the CD4 cell, it ‘injects its genetic material (RNA). The RNA then instructs the CD4 cell to produce more of the virus. These viruses (virions) are then released into the bloodstream and the CD4 is destroyed. Over time, the virus may destroy CD4 (cells) faster than your body can replace them, leading to a gradual decline in the number of CD4 cells.’ At this point, a positive result in an HIV test can currently reveal that your CD4 count is below 200 cells per cubic millimeter (mm^3), or your immune system is damaged. And ‘your body becomes increasingly susceptible to an array of other infections’ termed as ‘opportunistic infections.’

2.3 Acquired Immunodeficiency Syndrome (AIDS)

A constant effort is being made in order to distinguish HIV the virus, AIDS the disease, and statistical data related to each one. The HIV virus itself is not a disease and cannot kill a person. Its limit has been previously described. However, when your defenses are down or your immune system is destroyed by HIV, opportunistic infections can assail your body and create the condition AIDS. In other words, AIDS is a co-infection of HIV, and makes victims susceptible to any opportunistic infection like *pneumocystis carinii* pneumonia (PCP) or *Toxoplasma* encephalitis, Kaposi’s sarcoma, Herpes simplex ulcers, Tuberculosis, etc.

AIDS is the final process to HIV. Human Immunodeficiency Virus (HIV) can take less than 5 years or as long as 15 years before it progresses to AIDS. At that time, AIDS was considered as incurable and has killed more than 400,000 of the 688,000 Americans who have been affected since 1981 (CDC, 2001). “There is good news, however, in the form of protease inhibitors, a new class of drugs [like AZT, zidovudine (100mg), lamivudine (150mg), and indinavir (400mg) that make up the “cocktail,” the complex regimen of anti-retroviral drugs] that helps keep HIV in check. Protease inhibitors helped cut the number of US AIDS deaths by almost half from 1996 to 1997. As a result, AIDS dropped from the eighth leading cause of death in the United States to 14th. Beforehand, one could only avoid the HIV/AIDS virus, by protecting oneself during sex by using a latex condom during intercourse, and not sharing with others needles for tattoos, piercing, or injecting (heroin, cocaine, etc.) steroids or vitamins.

2.4 The Connection Between TB and HIV

After presenting TB and HIV separately, it is plausible to understand how TB and HIV are related to each other. First, consider HIV as the virus that destroys the immune system and the CD4 cells. Then, when the normal CD4 count, which is 400-1200/ mm^3 falls between 200 and 400/ mm^3 , one can develop tuberculosis (Infectious Disease Consultants of South Broward, 2000). In a fact sheet, the Broward County Health Department (Infectious Disease Consultants of South Broward, 2000) indicates that HIV infection increases one’s risk for tuberculosis by as much as 800 percent.

According to the CDC (1991), all patients with HIV infection and undiagnosed pulmonary disease should be suspected of having tuberculosis, and appropriate precautions to prevent airborne transmission should be taken until tuberculosis is diagnosed and treated or ruled out. HIV-infected patients present extra-pulmonary tuberculosis cases. As a result, an HIV-infected patient having tuberculosis has AIDS.

Currently, about 35% of TB cases are provoked by HIV/AIDS. Treating these HIV-related TB cases are among the most complicated. As a function of this, to stop the increased risk for TB among persons with HIV infection, the CDC, in 1990, issued *Guidelines for Preventing the Transmissions of Tuberculosis in Health-Care Settings with Special Focus on HIV-related TB issues* (CDC, 1994b). Generally, HIV-infected patients are taking medications to prevent the risk of developing TB.

3. Literature Review

The following review of literature highlights 1. the relationship between TB and HIV or HIV-infected patients with tuberculosis; 2. these include the patients' socio-cultural conceptions vis-à-vis these diseases and; 3. geographical and international prevalence of tuberculosis due to the HIV epidemic and migration.

Studies for some African countries demonstrated that since 1985, tuberculosis rates increased 10% to 15% per year with most of the increase being associated with HIV infection. In Abidjan, Côte d'Ivoire, for instance, 40% of all tuberculosis cases were associated with HIV (De Cock, 1996). Another study conducted for Ghana revealed, through a physical examination of 20 patients (n=20), 11 of them female, that HIV-infected patients were likely to develop tuberculosis. Further, it showed that patients with both smear-positive pulmonary tuberculosis and HIV had a *prolonged duration of cough* (Lawn et al., 1999) compared with patients who have TB only.

By the same token, Lawn et al.'s study showed that anti-tuberculosis treatment with thalidomide and pentoxifylline, which are both inhibitors of tumor necrosis factor- α (TNF- α) which plays an important role in the upregulation of HIV replication by *M. tuberculosis*, have not shown an appreciable impact on HIV load in African patients with tuberculosis.

A larger study of 22,620 cases based only on the workforce in Kinshasa, Zaire (now Democratic Republic of Congo), confirms that tuberculosis was five to seven times higher in HIV-1-infected patients compared with uninfected patients. In this study, Ryder et al. (2000) attempted to examine the connection between TB, fertility and HIV-1 infection. They hypothesized that the effect of HIV-1 infection on tuberculosis and fertility has a serious negative impact on a large workforce in Kinshasa. To test their assumptions, they conducted a 2-year prospective longitudinal cohort study, two large Kinshasa businesses, a textile factory and a commercial bank considered as Business A and Business B respectively.

The research concluded that the baseline HIV-1 seroprevalence varies according to the three job category levels such as manual, semi-skilled, and management. Among male employees, the low HIV seroprevalence rate tends to be associated with manual workers, middle rate to semi-skilled workers, and the high rate with managers, whereas among female employees, the high seroprevalence rate is associated with manual woman workers, middle rate to semi-skilled woman workers and the low rate with manager women. This implies a variation in the gender. The research also concluded partially that 15,277 seropositive cases of 'HIV-1 infection were more likely to develop *Mycobacterium tuberculosis* infection when compared with persistently HIV-1 seronegative individuals.'

Human Immunodeficiency Virus (HIV) infection and its impact on TB were also studied by Farmer (1992). In his study, Farmer attempted to describe HIV-infected TB patient, social and socio-cultural aspects in Haiti. With respect to this issue, three HIV-related TB patients from Do Kay, a village in Central Plateau, Haiti, were randomly selected to participate in the study.

The first case is a patient named Manno Surpris. According to the Haitian national laboratory, Manno did indeed have antibodies to HIV. Further, a TB test or an X-ray revealed he had tuberculosis too. Since he had tuberculosis, he responded very well to an antituberculous regimen (Farmer, 1992: 66). HIV/AIDS and TB are atrocious

diseases when existing together. Manno, however, was most afraid of tuberculosis. He said before he knew the characteristics of his illness: “Most of all, I hope it’s not tuberculosis. But I’m afraid that’s what it is. I’m coughing, I’ve lost weight...I’m afraid I have tuberculosis, and that I’ll never get better, never be able to work again.... People don’t want to be near you if you have tuberculosis.”

In this case, Farmer looked at HIV-related TB provoked by witchcraft. The study indicated that the patient “believes that he is the victim of someone’s ill-will” because he was a teacher and a pigsty manager, and one day beat one of his schoolboys for some transgression in the pigsty. In revenge, he thought that the schoolboy’s relatives sent a TB death on him and he got TB or an AIDS death and he got AIDS.

At the same time that Manno had fallen ill with tuberculosis, a very hushed rumor was circulating around Do Kay, Farmer (1992) recounted. ‘Manno was the victim of some sort of evil. His illness was the intentional result of some anger of a jealous rival. I heard this from an eighteen-year-old former student of Manno’s. He would not say who had passed this gossip on to him, and attempted to dismiss it. ‘I don’t believe it myself,’ said the student, ‘but that’s what some people say’. He also stated that he did not know who would wish to harm the teacher. When asked how he thought such an illness could have been inflicted on Manno, the youth was rather vague: “I don’t know...some people can do it by themselves, some go to a *bokor*,” (Farmer, 1992: 64) a sorcerer. In this situation, Manno, who in fact believed that someone sent him the illness, tried to be treated by a *houngan* (traditional healer) in a neighboring village to Do Kay.

Similar conclusions were derived in the two other cases presented in Farmer’s book. For example, Anita Joseph was also an HIV-related TB patient. She “was promptly diagnosed as having tuberculosis, and she responded rapidly to antituberculous therapy.” The cause given for her tuberculosis is because she was exposed to a lot of heat and a lot of cold while she was working as a maid. Whereas, the cause of her AIDS referred to sexual contact she had with a person having the syndrome. Anita contracted *SIDA* (French acronym equivalent to AIDS) because ‘she lost her mother, run away at fourteen, and been forced into a sexual union by poverty.’ Contrarily to this version, people in Do Kay believed that Anita did not have *SIDA*: she was “too innocent.” Farmer (1992: 87) tried to explain the term “too innocent” as follows:

The logic behind the statement [too innocent] was radically different from that underpinning similar statements made in North America. “Innocence” had nothing to do with such things as sexual practices (some villagers believe that Anita had led a “free life”), but rather underlined the fact that, very often, a string of bad luck signifies that one is the victim of *maji* [magical things]. But sorcery is never random; it is sent by enemies (p. 87).

To give a complete detail about this issue, continued Farmer (1992) in these terms:

Most people make enemies by inspiring jealousy or their own malevolent magic. Destitute and dogged by bad luck, Anita had never inspired the envy of anyone. Two persons who had previously explained to me the nature of the Manno’s illness queried rhetorically, “Who would send a *SIDA* death on this poor, unfortunate child?” It was this sense that Anita was qualified “innocent” (p. 87).

In this case, the study showed that a person who has a *sent disease* or supernatural one tends to see a *houngan* or a traditional healer to find treatment to. Anita stopped using her TB medications for a couple of weeks and her relatives brought her to a *houngan* for traditional treatment as they did for Vincent, Anita’s lover who died from TB and HIV/AIDS five years before. Here, it is to consider that medical pluralism and cultural factors influence patients’ medical choices, curing strategies, and their decisions to adhere to treatment regimens (Menegoni:1996) which refer to Western medical treatment.

Further, in the last of the three chapters concerning HIV/AIDS, tuberculosis and sorcery in the book, Farmer (1992: 95-109) came with the case of Dieudonné Gracia. Dieudonné was a victim with the same condition as those of Manno and Anita. The examination of Dieudonné’s sputum revealed the bacillus that causes tuberculosis. People thought that “a person who had died of *SIDA*, they raised a *mò SIDA* (AIDS death) from the cemetery, and sent it on Dieudonné,” and Dieudonné got *SIDA* or AIDS. Since he had *SIDA*, according to popular beliefs, he could

have TB because a sent *SIDA* “leaves you weak and susceptible to TB.” *SIDA* is TB’s older brother (Farmer, 1992: 107).

In one abstract reviewed, Glynn (1998) was interested in the resurgence of tuberculosis in many countries. The study concluded that “in some areas [or countries] the major influences on tuberculosis trends are the traditional ones: poverty, failures in the treatment system, and immigration system.” In South Florida, United States, for example, this is at the root of those three traditional ones that 49% of 629 TB cases were diagnosed for 1995 in the three counties, Broward (34%), Dade (58%) and Palm Beach (40%). All of those cases were among refugees or people born outside the United States. Data showed that 26 percent of those people had HIV-related TB (Granich et al., 1998).

In other areas or countries, “increasingly, the HIV epidemic has a huge impact. HIV infection increases the risk of tuberculosis approximately 7-fold, though this may vary with the stage of the HIV epidemic, the prevalence of tuberculosis, and the groups considered” (Glynn, 1998). Therefore, “dually-infected individuals develop tuberculous disease at a rate of 5-10% per year. HIV also increases the risk of disease following infection, which makes a major contribution to the burden in some settings” (Glynn, 1998).

The literature’s review of the present report tries to provide empirical support for the connection between TB and HIV in Broward County. In turn, the report will try to provide evidence to support the idea that an HIV-infected patient is more likely to develop TB or to provide evidence about patients living with HIV/ AIDS and tuberculosis. Also, it will try to provide empirical support to the increase of HIV-related TB rate due to immigrants’ socio-cultural conceptions in Broward County.

4. Methodological data

As stated previously, the main research objective is to study the connection between TB and HIV, and its socio-cultural aspects in Broward County in Broward County, South Florida. In order to collect qualitative data that were appropriate to the research, we have paid a lot attention to the participant selection, which consisted of HIV-related TB patients who were observed and interviewed according to their illness perceptions. Since this research focuses on foreign-born Haitians in Broward County, we have selected our participants of HIV-related TB patients among this population, to attempt to explain the Haitian socio-cultural conceptions and TB transmission or spread and treatment regimens among the Haitian immigrants in Broward County. The primary focus of the current research is not to make inferences about some larger population like foreign-born Haitians from a few research participants encompassing HIV-related TB patients (see Berg, 2000 about sampling strategies), but to in fact explore at least with them “the ethno-medical knowledge and practices related to TB conceptualization and management” (Vecchiato, 1997).

After looking at the TB prevalence in the foreign-born Haitian community in order to reveal the extent of TB infection in the population, we attempted to constitute our participant list from TB patients and HIV-related TB patients who frequented and were observed in the TB Clinic at Fort Lauderdale Health Center on State Road 84. In doing the selection job, we resorted to the triangulation process since this job has been done with the help of the social worker and/or supervisors because it was quite difficult for us alone either to pick some participants for this research or have their consent.

Most of patients contacted for interviews did not want to firmly participate because they did not intent to expose themselves or according to the stigma that TB carries in both Haiti and USA. For privacy purpose and subtlety, we revealed that we are a young professional (student) and doing independent study. Also, we reveal we will keep their name anonymous and all data confidential according to the informed consent form. The supervisor limited the number of participants to seven TB patients including three HIV-related TB patients without taking into account the criteria of gender, age, and religious beliefs.

The sample in this context, refers to a *convenience sample* since it “relies on available subjects [or patients] – those who are close at hand or easily accessible” (Berg, 2000: 32). The *convenience sample* is one of four types

of nonprobability sampling which tends to be the norm in qualitative research including ethnography for example. But, in constituting the sample, we attempted to make confirm whether the converse testing advice was followed—all patients who had TB were tested for HIV, and if they had HIV, on the other hand, they were tested for TB too. It is a very important idea, since the research also focuses on the HIV-related TB patients.

4.1 Research Setting

This research takes place in Broward County Public Health Unit (2421 SW 6th AVE, Ft. Lauderdale, FL. 33315). Fieldwork or observation, some interviews and research contacts were maintained there. Broward County Public Health Unit is the main public health clinic for the Broward County. Geographically, it is located in the Middle of Fort Lauderdale, compared with the Pompano Beach Clinic in North Broward and Hollywood Clinic in South Broward. About 1200 TB and HIV-related TB patients visit, every month, all of these medical places.

Broward County Public Health Unit is called currently *Eighty-Four Health Center* because its North Side of the Building the State Road 84, an important traffic way. Although it is called *Eighty-Four Health Center*, the entrances to the parking lot and the front (main entrance) of the Health Center building are not on State Road 84, and the address of the Center either. Both the entrances to the parking and the Health Center address are on a small street like SW 6th Ave, at the East Side. This street is perpendicular to State Road 84 (an east-west traffic road).

Haitian People tell you *they are going to Eighty-Four* (rarely they add the word *Clinic* to *Eighty-Four*). The East Side of the Building is longer because it is the front of the building. The East Side of the building is longer than the North Side, but the North Side that faces a main or busy road like *State Road 84* (and a cemetery across the road) tends to be the main side and seems to be more attractive.

For this research, the North side is emphasized because the TB Clinic is located in the west wing of that side. Generally, there are two wings, the east one and the west one to be differentiated from East Side and West Side of the building. Both wings are a kind of architectural shape that stands out. Inside the east wing, there is a staircase that links all of the three floors of the building, whereas inside the west wing, there is the TB Clinic.

There are different clinics in the same building. Among all of those clinics, only the TB clinic that has a side door where TB patients can enter into the TB Clinic without penetrating the rest of the building or without having contact with other types of patients. Because TB is a contagious disease, the TB Clinic is designed in order to keep the TB patients away from other patients or people who come to the Health Center for Adult Health Services, Women Health Services, WIC (Women, Infants and Children) Services, drug store, laboratory tests, immunizations, and to request birth or death certificates.

Behind the TB Clinic entrance door, there is a blue and white sign which is hung in the room with a metallic chain attached to the ceiling. The sign indicates: "Please cover your mouth when coughing." An additional poster indicates: "Do not speak of your medical condition in an effort to ensure your privacy unless asked by a Health Department representative."

Everyone has to wait in the waiting that is the largest one. The waiting room faces all additional rooms which are located in the TB Clinic. TB workers as well as patients cannot switch from one room to another without crossing the waiting room. The waiting room is decorated and equipped with pots of flower, art paintings, posters, a TV, one garbage can, a fire alarm, two flyer carriers or shelves, a little table, fourteen chairs, two vision test accessories, etc. On the walls, two big posters are exposed. The first poster pictures a young light skin woman who has HIV. This poster is about starting a combination of HIV medicines. *Combivir* is the name of the tablets issued from this combination (lamivudine 150mg/zidovudine 300mg tablets). The second poster displays only the word HIV written in black ink on a green paper. The letter "I" in the middle of the word HIV takes the form of an African traditional drum. The additional message, *An Nou Frennen SIDA* ("Help to Stop the Spread of HIV") on that poster is in both Créole and English.

Free flyers and brochures are laying down on the small table for review. They are about Refugees Services; Florida Kid Care; What you should know about living with HIV, TB and HIV: Know the risks; Tuberculosis facts: TB can be cured; and Rights and obligations as a consumer of Broward County Health Services. There is a three leg flyer carrier; it is attached to the wall next to the glass of the glass window shaping the Information Office. Twelve different flyers are placed on this carrier. They are about prevention, screening programs, and other medical programs posted by different health care providers. One flyer indicates the TB Clinic Schedule. The Clinic is opened Monday (12PM-7PM), Tuesday and Friday [(8AM-4PM) and except third Friday at 1PM-4PM], and Wednesday (8AM-3PM).

After the waiting room, come the first room which is the Information Office. Three of the four sides of the Information Office room have glass windows. Two windows face the waiting room and the last one faces the North side and dominates the parking lot and the *State Road 84*. Next doors to the Information Office located are the doors of the interview rooms. There are five rooms including the doctor interview room, two nurse interview rooms or clinical service rooms, and a medical records or storage room.

On the door of the doctor's interview room, two posters indicate two things: 1. *No one should have to suffer from Tuberculosis* and; 2. *Refugee Health Assessments are free*. Inside the room, there is a sink area where a TB medicine guide, a mug, and a latex glove box are available. Other medical instruments or stuffs are placed there. Books and flyers are placed on a small shelf. A patient examination bed, a weight scale, and a wheelchair are located by a glass window, which faces the North parking lot and State Road 84. On the walls which constitute the west and south sides of the room, an otoscope, an X-ray reading machine, two medical demonstration posters about shots, the *Mantoux tuberculin skin test*, medications used in HIV management, AIDS, and TB are hung. Finally, on the doctor's desk, a sphygmomanometer, tong depressor, a biohazard infections waste can, a stethoscope, and a blood pressure meter are left.

Next to the doctor's interview room, there are the other interview rooms or clinical service rooms which are less equipped in medical materials than the doctor's interview room. However, they have some materials such as cabinet files, oxygen cylinder, a poster about how TB medicines work, a fifteen-minute-air-vacuum, and refrigerators that are not included in the doctor's room. Only nurses operate in those rooms, and take care of either positive or negative TB patients. The nurses have also access to the medical records and storage room which has a large record file, a refrigerator, a sink area, biohazard infections waste cans, and stocks of water, juice, and packs of boost or nutritional energy drink.

In the south corner of the TB waiting room, there is a back door. This door is always close and limits access from the TB Clinic to the rest of the building or the other clinics located in the building. A warning sign is written on the door: "Please keep the door closed and locked at all times."

TB Workers: One doctor, three or four nurses, and one clerk work in the TB clinic. The TB Clinic is led by a charge nurse (an African-American woman in her late 30's or early 40's). As a team leader, she makes sure that patients are seen. She is also interested in following-up with patients. She is assisted by three other nurses. Two of these nurses work full time. And the third one, a Spanish/English Speaker, is on and off. The doctor is in the Clinic every Tuesday. The other days, she is seeing patients in other Broward County clinics. She is the only TB doctor for all Broward Public Health units.

There is the TB program or TB Control Program whose the Office is located on the second floor of the Building. Employees in this office deal with the bureaucratic tasks and the application of the TB program for all Broward County. Among them, there are the TB area surveillance manager, a nurse case manager, social workers, field supervisors, statisticians or area TB surveillance coordinators, and other TB specialists. The General Administrative Office for Public Health in Broward County is in charge of them all and is located in a separate Building.

Patients: The TB Clinic receives about 500 TB patients including new and old patients every month. This number represents 50 percent of the total TB patients who seek treatment in the three of Broward County public health units including Pompano and Hollywood. Since the Eighty-Four Health Center (or Fort Lauderdale Health Center)

depends on the city of Fort Lauderdale and the surrounding cities such as Wilton Manors, Oakland Park, Lauderhill, Plantation, and Davie where the Haitian community is more concentrated, it is frequented by a lot of Haitian TB and HIV-related TB patients. It is considered as the main setting of this research, and our fieldwork was conducted and completed there.

4.2 Data Collection

Interview is a major way of collecting qualitative data (Berg, 2001), and interviewing important people and HIV-related TB patients would be of interest in order to explore the Haitian ethnomedical conceptions of TB and TB transmission in Broward County. During the fieldwork from July to October 2001, conducted were nine (9) interviews whose two only in English and the rest in Haitian Creole. The first two interviews were done in Haitian Creole with an employee and a TB worker in the TB control program. The first interview was conducted with the Area TB Surveillance program coordinator who has a broad idea about the TB program, its management, and most of the TB cases. He is a respiratory therapist and worked for 20 years in the STD program, HIV/AIDS program, and the TB program as a field supervisor prior to being assigned to the statistics position. He provided the required statistical data for the research and granted an unstructured interview in his office. A tape recorder was used during this interview, since a tape-recorded interview is the most accurate way to record what people say (Spradley and McCurdy, 1988).

This interview was transcribed by using a professional transcribing machine. From the transcription, an interview guide was prepared, which allowed to hold three semi-structured taped interview with the social worker, the charge nurse and the Area TB Surveillance Manager. Then, the social worker was interviewed in Cr ole in the conference room located on the second floor, and the charge nurse in English in the charge nurse office of the TB clinic located on the first floor, Fort Lauderdale Health Center or Clinic 84. In both interviews, questions were asked about the TB program running, patients' perceptions of their disease, patients' attitudes to the received treatment, and recounting one or two HIV-related TB patients' illness history or ideas of disease causation.

Finally, all data from previous semi-structured interviews allowed us to eventually prepare 'structured and semi-structured interviews' (see Bernard, 1995) and conversation with the five (5) informants or patients, including two women. The informants have different religious beliefs. The characteristic of the sample was at least appropriate. It allowed us to collect diversified data about medical knowledge of the patients, since Haitian people have different religious conceptions of their illness. Sometimes, patients during the interviews were embarrassed to come up with information that tended to associate their illness causation with witchcraft.

Then, to bring patients to come up with particular information about the magico-religious perceptions of their illness, was used Menegoni's style, which presents questions on sensitive matters as witchcraft in an indirect manner: "In other communities, people believe that tuberculosis is caused by witchcraft. What do you think? (Menegoni, 1996). However, questions for the interview/focus group were a bit modified and asked in this way, "Do you know someone whose illness causation is associated with *move z *?"¹ All the informants, for more convenience, were interviewed in Cr ole, to allow them to better express their ethno-medical and biomedical knowledge. A tape recorder is also used for all interviews and some conversations.

In addition, information from observations and interviews were used to formulate the focus group topics. The focus group was conducted with four TB patients or participants, including two males and two females. Three of the participants were dually infected with HIV and TB. Among all four participants (the 5th one was met in the hospital room in Broward General Hospital), only one participant was previously interviewed when patients were being interviewed individually. Then, the others were completely new in the research process, and they were met during the focus group hour. The focus group was conducted in such a fashion since it was not easy to put TB patients or former interviewees together, and it relied on available participants chosen by the social worker with *the go-ahead* from Area TB Surveillance manager. The latter one provided an empty house that belongs to him, in which the focus group discussion took place on 1513 NE 15th Ave, Fort Lauderdale. Subsequently, the

¹. Move = bad, and Z  = air. *Move z * or bad air is a kind of bad luck ("airborne magical agent").

“telephone interview” (Berg, 2001) or conversation, interviews and the focus group were transcribed and partially translated in English.

To ascertain the prevalence of HIV-related TB among foreign-born individuals including Haitians, data provided by Area TB Surveillance of Broward County Health Department were used. The charts of 778 reported TB cases by HIV co-infection during the period 1995-2000 were reviewed. This methodology description points to the fact that the Health Department or TB control programs used the ‘tuberculin skin test and the extent of chemoprophylaxis’ to determine the incidence of tuberculosis among individuals (Florida Health Department; Gourevitch et al., 1999). While testing people for HIV, an HIV blood test is required to detect HIV in the patients’ blood. Converse testing is advised—all patients who have HIV should be tested for TB, and if they have TB, on the other hand, they should be tested for HIV.

4.3 Data Analysis

As we know it, along our fieldwork, the lack of time and other occupations did not allow us to transcribe all the interviews to translate them into English, and to decipher the data interviews on a regular basis. The transcribing job was done in three steps and the translating one was completely performed just before the final coding or analysis. Thus, the two first interviews conducted with the statistician and the social worker on July 27, 2001 were transcribed three days after. These interviews were coded and ‘analyzed for content themes, recurrent ideas, and key points.’ As Rubin and Rubin (1995) suggest, “you examine the data you have heard, pull out the concepts and themes that describe the world of the interviewees, and decide which areas should be examined in more detail (p. 226).” As stated earlier, with the help of this preliminary analysis, an interview guide was prepared in order to interview the TB patients and the charge nurse of the TB clinic.

After all patients were interviewed, interviews were transcribed and also analyzed in order to figure out additional themes and concepts. The second step of the analysis was completed and the focus group topics were formulated. The focus group discussion relied on 7 topics, but 4 of these topics were relatively discussed. Thereafter, the focus group discussion was transcribed. One hundred twenty-five pages of data were collected including 5 ‘fieldnotes that were transformed into observation data’ (see also Emerson, 2001: 131-134), 6 interviews and one focus group that were completely interpreted in English. All of them were merged in order to perform a final coding or a final analysis to conclude the report.

Our “fieldnotes [that] have a [...] *descriptive* thrust, providing accounts of people [or TB patients], scenes [or different days of observation in the TB clinic], and dialogue” (Emerson, 2001, 133) contribute to the writing of some methodological components such as description of the setting, description of our relationship to the setting, etc. Additionally, they allow us to confirm or validate some informants’ viewpoints or some interview statements. Compared with the fieldnotes, *information* from the coded interviews and discussion *was reassembled into themes, concepts, ideas or arguments* (Rubin and Rubin, 1995) to display the findings. Below, four major themes will characterize our findings. Selective direct quotes were extracted from observation data or fieldnotes, interviews and discussion to support these themes.

5. Findings about Haitian TB Patients and HIV-related TB Patients’ Ethnomedical Knowledge

This study is about Haitian socio-cultural conceptions of TB and HIV-related TB. It attempts to see the role play these conceptions in the early diagnosis, TB transmission or spread and the treatment regimens. Then, Haitian TB and HIV-related TB patients’ socio-cultural conceptions are considered as an important factor in the TB spread, treatment regimen or TB management in Broward County. Interviews and a focus group with some TB control program workers and TB patients and HIV-related TB patients allow us to understand the extent of the influence of those conceptions among the Haitian foreign-born immigrants. Prior to displaying the findings at the socio-

cultural level related to the themes identified throughout the data analysis, let's see how HIV infection contributes to influencing the TB infection.

5.1 Prevalence of HIV-related TB in Broward County

The retrospective Broward County Health Department charts of 954 reported TB cases show that TB cases and TB cases by HIV co-infection rates varied gradually year to year between 1985 and 1991. First, we see an increase in reported cases of TB between 1985, when only 106 cases were reported, and 1991, after the intensive progression of HIV in Broward County, when 164 cases of TB were reported. This suggests that HIV infection started influencing the TB infection or HIV-related TB rate.

Second, between 1995 and 2000, charts of 718 reported TB cases show that the rates of TB cases by HIV co-infection varied slightly due to new and available TB treatment regimens, as compared to those of 1985 through 1991. In this, we see that the HIV-related TB rate was 34% of 136 reported TB cases in 1995, 35% of 142 in 1996, 38% of 123 in 1997, 32% of 135 in 1998, 37% of 140 in 1999, and 35% of 102 in 2000. That gave an average of 35% of HIV-related TB cases or TB cases provoked by HIV co-infection for the last 6 years. Compared to both 3,402 HIV cases and 102 reported TB cases in 2000 for example for Broward, the HIV-related TB rate was low. Broward County health care providers came to detect HIV-related TB among infected persons by testing everyone for both HIV and TB when suspected the patient had either TB or HIV. Among the 500 to 600 people who were tested for TB or both TB and HIV every year, only an average of 130 people were found to be infected and co-infected every year.

Q. When you see someone has TB, do you automatically test him for HIV?

A. It is a good question. Usually, in the hospital, they have already tested the patients for HIV. Let's say that between 75 and 85% were already tested in the hospital. The thing we noticed 5 to 6 years ago, was that patient assessment testing was biased due to the fact that TB patients who were over 60, 65 year old were not tested for HIV. Particularly, the hospitals did not test them. Perhaps they think that people from this age category are HIV-free. This implies that they have no sexual life. It was wrong. My responsibility now is to assign a new doctor to the patient—after the patient leaves the hospital, our own doctor is assigned to this patient. If we have no HIV/AIDS test results from the hospital, our job is to put this patient on counseling. Automatically, this person starts with his/her treatment here, we ask him/her to be tested for HIV/AIDS. But that person is entitled to reject our request. However, according to the policy, our responsibility obliges us to test for HIV everyone who has TB, and we are supposed to put him/her on counseling.

Currently, the population of Broward County is 1,535,261 people (US Census 2000). For this large population, the TB morbidity rate or HIV-related TB morbidity rate in the county was not high. However, when the problem was considered from an epidemiological point of view, it became worrying. In 1999, for example, 56% of reported TB cases were among foreign-born individuals including Haitians. Since, in this case, official data are not available about the exact percentage of Haitians infected with tuberculosis and HIV-related TB among foreign-born individuals, our interview data are taken into account. They suggest that 53% of reported foreign-born TB cases were Haitians. Seventy-five percent of them were HIV seropositive. This proportion was relatively high compared to that of people of Hispanic origin (17%).

Q. And about the Hispanic community?

A. We do not record a lot of cases. In some cases, we record in the Hispanic community, only a few are HIV-positive. Let's say for the year 1999, we recorded 23 Spanish TB patients. However, only 4 of them were HIV-positive. But, if we take 4, we divide it by 23, that gives 17%. When we compare 17% to the statewide rate that is 30 to 35%, we conclude the coinfection rate among the Hispanic community is very low. Now, let's compute for the black population, that we call African-Americans, which includes Haitians. We recorded 83 cases in 1999. In those 83 TB cases, 42 of them, that gave 49.75%, were dually infected. If we take these 42, you can believe me, 75% of them were Haitians.

Since the prevalence of TB and HIV co-infection is high among foreign-born people or refugees, particularly among Haitians, then, the following sections will attempt to approach transmission and treatment and socio-cultural aspects of the diseases among the immigrant community or foreign-born Haitians.

5.2 Patients' socio-cultural conceptions, Transmission and HIV-related TB

Most cases described below refer to transmission of TB and HIV-related TB among the foreign-born patients. Foreign-born patients make up more than 50 percent of Haitians visiting the State Road 84 Clinic. Informants were highly motivated to provide information about Haitians and the high prevalence of TB cases and HIV-related TB among Haitian patients.

That explains why at this point, the research tends to focus on Haitian cases. Several reasons may explain this prevalence among that community or the large TB spread in Haitian immigrant population. The most common factor associated to this is due to the fact that Haitian people are among the most nostalgic ethnic groups in South Florida. They frequently visit parents and family in Haiti. Because tuberculosis is prevalent or remains an endemic disease in Haiti, people with HIV infection can be infected with TB during even a short visit in Haiti. When they return to Broward, they can contaminate friends or other relatives, since they live in social/sexual promiscuity. Up to four people may share a single bedroom, or up to 7, 8, 9, or even 10 people may share a two-bedroom dwelling. In this situation, they use the same eating utensils and breath the same air infected through coughing and sneezing. Tuberculosis is significantly transmitted according to permanent contact with the infected air; therefore, roommates or residents who live in the same house or area with the infected person are at a greater risk to catch the disease.

We must be realistic; we always want to go back home. We have "alma mater" (homeland) nostalgia, we must go back home to see our family. We know that TB comes from there. TB is prevalent in Haiti. We cannot lie to ourselves. Therefore, if, for example, in good health, let's say rather if I have HIV/AIDS, and I go back to Haiti. There, I will expose myself to TB wherever I go. It is a normal fact that I can come back with the disease, I can catch it. So, I come here, I have TB and share a house with 8, 10 people, I have chance to transmit TB with those people [...] Let's say I am not in Haiti and I have my brother who travels back and forth in Haiti, my brother is in contact with TB. He becomes sick, he transmits the disease to me. Then, all those details can explain high TB rates in the Haitian community.

However, contact investigation worksheets and interviews with patients reveal that Haitian patients never knew where they contracted the disease, or never knew if people who lived with them, worked with them, and were in the same class with them had the disease. Their perceptions about the disease indicated that their disease came from nowhere, and fell on them.

Q. *How do you think you catch your disease?*

A: Well! I don't know. Because I am not in [sexual relation], I don't know.

Q. *How do think you catch this disease?*

A. I don't know.

Q. *Haven't you any idea?*

A. No-no!

Q. *Do you know someone who lives close to you and has the disease?*

A. No!

A third patient who did not know where he caught TB tried to explain how he caught it in such a fashion:

Good! He-e-e-e-ey, then while I come here (United States), while I come, and it was almost, it was almost this kind of food I eat here rather than eating the Haitian food to which I was accustomed, I eat other food too. In this context, I did not eat as much food as I was supposed to. When I was in Haiti, as I was well cared for, I am not cared for like that here (or in Haiti, I ate better than here).

Somewhere, our focus group discussion, after showing that participants do not know where they catch TB or HIV-related TB, revealed that someone can catch TB if he/she switches from a hot area, while his/her body is still hot, to a cold area suddenly or if he/she is exposed his/her body to both heat first and cold immediately after. "Heat and cold can give it to you (Cho ak fret la kapab ba ou li)," said a participant. Farmer (1992: 86) reached the same conclusion in a case study through his book. He pointed out this from a dialogue with one of his patients: "If I had tuberculosis ... truly, I might, because I was cooking, I was in and out of the refrigerator."

In light of the above details, the social worker being a supervisor of the TB control program argues that they cannot contract tuberculosis miraculously because it is a contagious and acquired disease. They intend to hide the fact that a member of their family, or a friend of theirs, had the disease, because of the fact that, since the time they were in Haiti, they had a negative view regarding TB, a disease that, in Haiti, carries a heavy stigma. In Benin, West Africa, country where came most Haitian ancestors, TB carries the same stigma. "When you are in Haiti, once you have this kind of disease, all your stuffs are set aside (Se le-ou Haiti, depi ou gen bagay sa yo tout bagay ou se apa ke li-ye)," a patient revealed. Haitian people are prejudiced against individuals infected with TB.

Q. Why do they hide that they know people who have TB?

A. But merely we think that most of our patients... may be... it is one of... you know the stigma that carries TB disease, stigma that carries AIDS disease.

When we know before all TB, TB, we know that we came from the Third World country, we are familiarized with it, and we know the kind of stigma it carries. Most of the time, they say that people who have TB are poor people, people who are truly poor, people who are undernourished, it is a kind of malnutrition that causes this disease.

Once a person catches TB or further, HIV-related TB, and people know that he/she has it, they humiliate him/her. They tend to give up any relationship with the infected person. The Broward patients or participants during the interviews and the focus group discussion always mention the humiliation problems that they have in their environment.

Well! They consider me as anything, because the way we used to stick together is not the same now. They are supposed to be like... I don't know how they think. I don't know if after the disease, they changed their mind. I don't know (sad voice).

But, there are so many people once they know that you have the disease, they do not eat with you, they do not talk to you, and then they *chi-chi-chi* (whisper) about you. Anyway, I am not disappointed. I do not talk my business to nobody. Only the doctor knows my business, and maybe I have (a close) friend who knows my business.

Currently, in Haiti, when a person dies of TB, all of his/her belongings or clothes are often burned down or dropped off in the bush.

Taking into account all those criteria, most of Haitian TB patients in Broward rejected Western medical etiology or the scientific causes attributed to their illness, and believed that their disease was caused by witchcraft. In relying on such perceptions, they tend to minimize the social impact of the disease around them. They do not feel deeply ashamed in this case when people envisage that their illness causation is due to supernatural or magic agents. In

this respect, a twenty-six-year-old patient, for example, when asked if he is victim of someone's ill-will, he gives this account.

But, I know evil exists, while, when I sleep I have some revelations, I do not want to say I believe in revelations, but through those revelations, perhaps if I think to them, I focus on them all the time, I would believe that someone is doing something to me (is sending bad luck on me).

There was another case, a 45-year-old HIV-related TB patient who already knew he had tuberculosis because he had all of the common symptoms, such as weight loss, cough and fever, but refused to see a doctor to undergo a clinical diagnostic since he thought that his disease is a sent disease or *sent TB* (see Farmer, 1992). Once this patient went to the doctor, clinical diagnostic revealed that he had both TB and HIV/AIDS or HIV-related TB. Then, he tried to explain the origin of his disease by linking it to a friend who borrowed more than a thousand dollars from him.

Q. *You told me, you know some people [that they sent magic things on them].*

A: Yeah!

Q. *I think that it was another person?*

A: Yeah!

Q. *For some money?*

A: It was me.

Q. *It was you?*

A: Yeah!

Q. *How much was the money?*

A: 1500 dollars.

Later, when he claimed his money back, they refused to give it. In this context, he maintained that they sent magic things, witchcraft, or *SIDA death* on him in order to kill him or stop him getting his money back. In his mind, he believed that this *magical expedition* made him sick or infected with either TB or AIDS.

A: Yeah! They never give me the money back. They preferred to send me underground [kill me] in order I stopped asking it to them.

Q. *Since that time, you never ask them it?*

Patient IV: I don't want that this thing repeats anymore.

Q. *Did they go to Haiti or here in order to manipulate this magic thing?*

A: They went to buy the magic powder in Gonaives [Artibonite Department, Haiti].

Q. *Gonaives. Oh-ho, they came back (with the powder), they sent it on you. That means all those diseases you have, they just...?*

A: It can provoke all those diseases.

From 1996 or 1997 to at least 2002, this patient was hospitalized several times in Broward General Hospital. Despite his morbid state, he got married and informed his wife that his disease was a supernatural one. He fathered

one child in this marital union. Since he thought that his disease was supernatural, he maintained that he was unable to transmit it to his wife and child.

In the same perspective, a 42-year-old woman had TB and AIDS/HIV from her first husband. After the death of her husband, she was remarried with a pastor. She never said to the pastor that her first husband died from TB and HIV/AIDS. She only let him know that her illness was sent by the members of her first husband. She had two children with the pastor. Both children were born with HIV infection. Later, when she was really sick and hospitalized in Broward General Hospital, people in her medical staff asked her if her husband was informed about her illness. She said that she never explained it to him. The medical staff constrained her from warning her husband about her disease.

In light of this conception, HIV-related TB transmission rates are increasing in Broward among the Haitian community. Haitian people often do not rely on prevention methods. Some participants in the interviews and focus group discussion affirmed that they never heard about a TB prevention program.

Did you never hear about prevention; the way you must behave to avoid catching the disease?

No! I don't know how I can behave to avoid catching these diseases. Once they told me to see the doctors regularly, I do it, that's all.

They do not protect themselves and others. They continue to engage in unprotected sex and live in sexual promiscuity. During two interviews, TB workers revealed such behaviors.

We must look at our behavior; a factor we don't like to approach. Let's look at the behavior of the Haitian men, let's look at their perception toward HIV/AIDS, whether the person has HIV/AIDS or not, once that lady is in good shape (fat), she looks beautiful down the street, they think she cannot have HIV/AIDS. In their view, it is thin people who can have HIV/AIDS. This is all of these things we must take into account, not only the problem of TB we must only focus on, but also on the problem of HIV/AIDS. Once we come to eradicate the HIV/AIDS epidemic, by educating Haitian people about HIV/AIDS influencing the TB rates, we believe that we can resolve the TB problem itself.

If someone believes that they send a supernatural disease on him, then, he became ill, he can do everything because he has any chance...he cannot transmit the disease to other people, because he catches the disease supernaturally. If I look at supernatural disease well, if someone sends a supernatural disease on someone else, the disease has to fall on the targeted person, and produces the appropriate effect. This disease cannot come from one person and goes to another one. Well!. In this way the patient sees it, and he gets married with the idea he cannot transmit the disease to his wife. So far, I don't know if his wife catches the disease because I have no contact with her. But probably her wife can catch the disease too. He has the disease, he doesn't protect himself, he doesn't protect his wife, and he fathered a child in the same condition, that which contributes to enlarge the problem.

When patients come to the Health Center and are informed that their HIV and TB tests are positive, they argue that it is a *move ze* (magical air) or bad air that was on them. Here, bad air has the same connotation with a *sent SIDA* or a *sent TB* (see Farmer, 1992). In this respect, a 35-year-old patient was recently noticed at the clinic for maintaining that a *move ze* had been sent on him by jealousy. He said that he was hated by people around him because he was taking care of his mother who lives in Haiti.

Generally, patients who perceive their illness in this way, as a sent disease, plan a trip to Haiti in order to see a *houngan* or *bokor* and look for the traditional or herbal medicine. Consequently, data interviews reveal that the clinic loses many patients. When those patients go back to Haiti for spiritual work or traditional treatment, most of them do not return here to Broward, but die in Haiti.

This kind of stuffs causes a lot of disease in my body, man (...) Now it provokes in my body a pneumonia that makes me tired. I will go back to Haiti for the pneumonia, man.

Q. *Why you go to Haiti (...)?*

A: In order to be healed more quickly.

Q. *How, in order to be healed more quickly?*

A: In order to be healed more quickly.

Q. *What happens, there are good doctors here, and you go to Haiti?*

A: Pills to pills.

Q. *Um-hum!*

A: Pills.

Q. *Mhou houn!*

A: Pills I am taking.

Q. *It's hard?*

A: Pills I am taking.

Q. *Pills you are taking, and in Haiti, what you will do in Haiti?*

A: Herbal Medicine!

He spent one month in Haiti. Since he was in Haiti, he started following traditional counseling there that brought him to change his mind, and he started taking herbal medicine. He stopped taking the medicine prescribed by the doctor. He spent one month there, all the month spent in Haiti, he did not take this medicine.

However, those who have the chance to return here are in critical condition and need to be hospitalized before long. Because, when they were in Haiti, they followed the *tradipracticians*² therapy and stopped using the prescriptions they were given in Broward.

5.3 HIV-related TB Patients' attitudes vis-à-vis treatment regimens

From the interviews, we noted that the majority of patients who believed that their disease is a sent disease or witchcraft-caused tuberculosis, did not respond to a TB treatment properly at the clinic. On the contrary, those who believed in either Protestantism or Catholicism and attributed the causes of their illness to malnutrition effects and tubercle bacillus that were spread through the air, tended to adhere more to the modern medicine. As my interviews indicated, two protestant patients completed their therapy normally, and favor a positive relationship with the TB field supervisors.

One of those two patients was a church member in Fort Lauderdale. He had all the TB symptoms such as fever, weight loss, and cough. He was so sick that he was unable to work. With the help of the church, he paid his rent and other utilities. When the social worker at the clinic knew that through his cousin being a pastor assistant at the same church, he contacted the chief pastor directly and presented to him the condition to fill in order to be admitted to the hospital without health insurance. The patient went to the hospital and was immediately hospitalized for 6 weeks because an emergency TB test revealed that he had TB.

². Tradipractician (*tradipraticien*) is a French West African word used for one who practices traditional medicine or ethno-medicine.

He was enrolled in a therapy program which consisted of a rifampicin-based, six-month regimen with streptomycin infections in the initial phase (see also Menegoni, 1996). A few months later, he was again tested for TB and HIV in order to complete his file with Immigration and Nationalization Service (INS) for legal permanent residence. His new test revealed that he had HIV/AIDS. He returned to the hospital and the doctor prescribed him “*Combivir*, a drug combined with AZT and *epivir*.”³ Often doctors who specialize in HIV-related TB can also prescribe *isoniazid* (INH) which reduces the tuberculosis risk in HIV anergic persons (Gourevitch et al., 1999).

Because the patient needed more help than that offered by the church, the clinic sent a nurse to his home for six hours every day to supervise his treatment regimen, as well as to cook and clean. He wanted to be completely cured, therefore, he was receptive to the nurse’s additional recommendations concerning the necessity to continue therapy.

Effectively, he (the patient) arrived to the hospital, they hospitalized him for one month to one month and half. They came to test him. They saw that he had TB. This person above all learned that he had TB when he arrived at the hospital. But he was diagnose with AIDS/HIV before, when he was completing his file with INS for permanent residence. He at this time went to the doctor. After testing him, the doctor let him know that he had the virus. And then, he spent a lot of time in the hospital. After he went back home, and I visited him personally there. I provided him some services because I am an employee from...entered to his home, and people in his church helped him too. But help provided by people of his church was not enough, I dispatched an aid nurse to his home every day for 6 hours to help him and assist him in cleaning his house, cooking, washing his clothes, and a series of domestic jobs. He was recovered. He is now very fine because he is regularly taking his medication, and following medical recommendations.

Thereafter, our data revealed that he gained weight and went back to work. Farmer (1992) described such a health improvement through the Manno Surpris case. Manno, before his health declined to death, was able to go back to teach and retake care of the pigsty after he followed the initial phase of the therapy.

In fact, the attitudes indicated above were concerned with patients with Western beliefs and their attitudes to complete the full course of therapy. So, the following sections will be filled with details about the patients motivated by traditional beliefs. As stated earlier, those patients who believed in witchcraft tended to discontinue therapy and did not come to the clinic regularly for medical checkups or refill their prescriptions. During observation in the TB clinic, we noticed that nurses and supervisors arguing with those patients either while they had contact with them physically in the clinic or while they were talking to them over the phone about missing appointments and failing to refill their prescriptions on time.

Our interview data showed a 39-year-old man who lived in Coral Springs, Florida, and had contracted TB and HIV/AIDS since the time he was in Haiti. He attributed the cause of his illness to supernatural agents such as magical powder, a *sent SIDA* or a *sent TB*. He favored the idea that he was victim of a sorcery act perpetrated by some people in his family. Although he reached Florida’s borders, he continued to assume that he was still persecuted by magic. Recently, according to a social worker who went to his home twice a day for 4 months to make sure that he took his medications daily during the initial phase of therapy, the patient stopped taking his medications because he was informed by people in Haiti that he has a supernatural disease. The *bokor*, traditional voodoo sorcerer, who was consulted in this matter, wanted the patient to change his medications.

He always thinks that his family members in Haiti, living in the region he is from, sent bad luck on him, they hated him, they did magic things (...)

³. It was mentioned by an interviewer. Further research indicates that COMBIVIR tablets are lamiduvine 150mg/zidovudine 300 mg tablets.

He was sick before he came here. Since he was in Haiti, he used to be sick. And, then, he came here, they still think (...) other close family members who did some routes for him [or went to a magico-religious healer], came to inform him that what kind of problem he has, and he must take his medication in such a way. "Do some routes" means go to or consult a Houngan [a Voodoo priest, a magico-religious healer, a tradipractician, or a traditional healer], it is also called; make a round (means go somewhere or consult a Houngan in order to know what is going on magically). This kind of thing lets him know, act like (...) that explains why he refuses to take the medicine.

This change of medication by the patient was a worrying observation for the TB control staff. They realized how deep the patient, an asylum seeker, trusted the traditional medicine when they discovered that the patient dropped their Western recommendations at the expense of the traditional ones. He did this expecting an immediate recovery, in order to face his appointment with INS for green card purposes—which he saw as an important issue—without the disease. While the social worker had long recommended him to take the medications such as ethambutol, streptomycin, and Isoniazid (INH), and rifampin (RIF) and come regularly to the clinic in order to be qualified for filling with INS a waiver available for applicants living with HIV/AIDS, the patient never did.

This patient had an appointment with immigration. But to be fully qualified, if the applicant has the HIV virus, he must file a waiver stating on his infection for immigration grants him/her the green card. I encouraged him a bit to follow doctor's recommendations. That allowed him, when the time came to file the waiver, to file it with no problem and sends to immigration. He never did.

Additionally, our interview revealed two cases. The first case referred to a young Haitian soccer player in Fort Lauderdale. He waited until the last moment to come to the clinic when all TB symptoms appeared. Further TB testing and radiography confirmed that he had TB and was in critical condition. He failed to come to the clinic to undergo an early diagnosis; since his illness was attributed to supernatural causes, he stayed home to follow traditional treatment. But he did not know that medication that was not specifically related to TB treatment can produce a considerable side effect in treating TB.

The second case focused on a patient who believed that he was overtook by magic, but adhered normally to the initial phase of the modern therapy because he was educated by the social worker about tuberculosis *bacilli*, the treatment of tuberculosis and the importance of taking medications, despite his cultural beliefs. However, when the medications occasionally developed side effects⁴ or allergic reactions in him, he found a pretext to travel to Haiti in search of traditional treatment. He spent one month there.

Although he traveled with enough medications for one month, he did not use them at the expense of the herbal medicine recommended in Haiti. When the herbal medicine did not work in his case either, he came back to Broward sicker than before and with a recrudescence (regrowth) of the TB symptoms. He went to the clinic and the doctor required new DNA tests. Thus, the DNA test indicated that the patient became resistant to either INH or rifampin or both due to his imprudence in Haiti. In this case, the doctor changed the regimen. The literature review suggests that the doctor may also supplement the regimen with ethambutol or streptomycin.

I allowed people in the clinic to refill his drug prescription before he went back to Haiti [...] He spent one month in Haiti. Since he was in Haiti, he started following traditional counseling there that brought him to change his mind, and he started taking herbal medicine. He stopped taking the medicine prescribed by the doctor. He spent one month there, all month spent in Haiti, he did not take this medicine. Unaware, he (the patient) came back from Haiti after one month, he went to see the doctor. The doctor required him some tests. The doctor has some special tests for that. He has a DNA test that can show that the patient's disease dev*/elops resistance to a

⁴. The most common reasons for discontinuation were patients reports of side effects and documented hepatotoxicity (Gourevitch et al., 1999).

medicine. They saw that the medication cannot help him anymore because of one month he spent there without taking it. The doctor changed it, and prescribed him some different ones.

It is important for a patient to follow the drug regimen one hundred percent, as interviews revealed. Non-compliance is one of the most significant contributors to treatment failure and acquired drug resistance (Spiegler and LLowite,1999).

5.4 Multiple Drug Resistant (MDR) to Directly Observed Therapy (DOT)

Tuberculosis is a chronic infectious disease that requires extended therapy (6-12 months). Completion of treatment is a major issue in tuberculosis therapy. Irregular or incomplete treatment can compromise the cure, cause drug resistance and give rise to relapses (Toman in Menegoni, 1996). Accordingly, *State Road 84 Health Center* developed particular norms to bring the patients to take their medications regularly. Thus, it established monthly prescription refills and medical appointments as principal norms to bring the patients to consume the medications before they came to their next visits. Despite this process, the clinic recorded several cases in which patients came to refill prescriptions after one month and a half or two months, whereas the normal time period for refills was one month. That indicated that the patients skipped several days or weeks without taking the medications.

Sure, patients they come in, they say “Yes, they are going to take it” they get home and they don’t take it. They come back the next month, and get more medicine. You go by their house, and there is a whole shelf-full of medicine up there.

It is very important for the patients take his medication with 100%. If they tell you to take it twice a day, you must be accustomed to take it twice a day, to avoid skipping dose. In this case, it is unacceptable to take it one week and then skip a week. We face a lot of cases. (Normally), they prescribed the medicine to the patient for one month. The patient went back to the clinic to refill his drug prescription after one month and half, after two months.

In fact, those patients, in addition to others described previously, who did not complete the full course of therapy according to their health beliefs or socio-cultural perceptions, became resistant to one drug or multiple drugs (Spiegler and LLowite, 1999). Consequently, treating those patients who are resistant to one or multiple drugs took 9 to 18-month regimen of *isoniazid* (INH). In this case, the clinic applied the *directly observed therapy* (DOT) program in which social workers, field supervisors, or volunteers went to the patients’ house and assisted or witnessed the patients while they were taking their medications.

If they require you a prescription for one month, and you take more than one month to refill, it means you skip several days without swallowing your pills. Then, it is probable that this person is at a greater risk to develop drug resistance.

MDR, multiple drug resistance. The same case can happen in TB, but in TB, this case [MDR] is not too frequent because we develop what we call DOT. We make sure we went every day to the patient’s house and witness that he swallows his medicine.

Interviews and focus group discussion reveal that most patients did not know what is DOT. To questions asked about the DOT practice, they gave an inappropriate answer or answered that they don’t know.

Good! In fact, I have no problem with, but most of the time, when you think to yourself, you think to your destination, you feel that I do not progress.

No! (...) D-O-T, I don't know (...) Well! As I don't know, I cannot inform you about it. I don't know if they talk to the person who gives me the medicine, but I never meet nobody who talk to me.

Interview data show that several patients have no idea about DOT, so DOT was in this case defined for them. Patients were asked further questions about. There is one patient (Patient III) who was hospitalized in Broward Hospital with whom we were speaking about DOT in order to know after she gets discharged, if she will be able to receive an aid nurse or a TB supervisor for administrating DOT at home. She did not completely share this idea. That can be explained by the fact that either she would neglect the western medicine at the expense of traditional medicine once she gets back home or she would feel that with an aid nurse for home health assistance, neighbors would find out what is her disease. Since she was not willing to adequately answer my questions, both the social worker and a nurse who was present in the room and was removing the IV (intravenous) bag to talk to her and make sure she does not want to answer the question.

In the hospital, every medication you are taking here is handed to you by a nurse. When you leave the hospital, you go back home, TB workers will visit you at home to give you the medication, will you have problem with those people.

Q. Will you have problem with this kind of things?

A. Hum-hum! Just write down the name of the medication for me, I will (...).

Nurse: No, no, no, they do not ask you for that. When you leave the hospital, you go back home, they will continue to give the prescription to take them at home, but they will not give to you directly, but a TB worker they will send to your house to give them to you every morning, do you have problem with people who come to your house to give you the medication, to witness you in taking them?

A: I used to take them by myself.

Further, interview data reveal that there are some patients that either the clinic or Broward General Hospital placed them on DOT right after the first diagnosis because their health state was very worrying or they were very weak physically. That happened in major cases in which the patients believe that their illness is a *sent illness* or caused by witchcraft, and as a matter of facts they did not urge for early diagnosis, and stay home in order to use herbal medicine or magico-religious healing. In fact, a 46-year-old man was hospitalized for one month during his first medical visit diagnosed with HIV-related TB in Broward General Hospital.

Well! What happened, but there is one of the two cases I was trying to tell you about the two asylum seekers, which I administrated DOT for. I missed...because he doesn't want to take the HIV/AIDS medication...he doesn't want to follow the doctor. This is the same patient about which I told you beforehand that they send the disease on him, he said.

Before the patient left the hospital, the doctor contacted the clinic in order to meet him and continue with the DOT assistance. In such cases, the clinic dispatched the social worker and the nurse case manager to meet the patients. The case manager looked at the patient's medical status and the social worker looked at the patient's socio-economic status.

They met, in fact, the patient in question at the hospital. The case manager reviewed his medical status and educated him about the disease, food to eat, and the vitamin or dietary supplement like *boost*, a shake to take three times a day. In part, the case manager was also interested in the patient's nutritional regimen. Whereas the social worker in his investigation realized further that the patient necessitated financial support. Thus, the TB support program took his rent in charge for two months, and granted him fast food coupons and a gift certificate, which is also a kind of coupon to buy shakes and food.

She (the case manager) is a nurse. Me as a (...), I went to the hospital with her. She, the case manager, was taking care of the medical things that have nothing to do with the social things, economic things, which are related to my responsibility. Lots of people believe that when a person is sick, if he/she has no insurance, how he/she will do to be treated. It is my responsibility to temporarily find shelter for him/her [for example].

The TB control program is also supported by Broward General Hospital and both North and South Broward District hospitals. It also backed up by some private agencies such as the American Lung Association of South Florida, the Catholic Charity Center, and Jewish Services. Most of those sponsors referred patients to the DOT program administrated by the clinic. Thus, by participating in the TB control program, hospitals and patients, for example, reduced their expenses. In short, hospitals, which transfer patients to *Clinic 84*, tended to invest less money in their treatment, because holding them in the hospital for several weeks cost the hospital administration more money in payments to the medical staff for labor and services. Meanwhile, patients who were transferred from a hospital to *Clinic 84* for DOT assistance avoided increasing their hospital bill concerning room and medical services.

Most patients that hospitals or private agencies referred to *Clinic 84* were smear positive. They were contagious or could contaminate people living close to them. They could cough blood, were dehydrated, and physically weak. Therefore, if they could not stay in the hospital, they had to be isolated somewhere else. In function of this, the TB control program provided many patients motel rooms and board and placed them on DOT for several weeks or months until they became smear negative. Meanwhile, let's mention a patient who had impression that she was atrociously submitted to her DOT regimen.

There is no exception. All patients were expected to adhere to DOT regardless their <<illness-identity>> (Lindenbaum and Lock, 1993: 260) or health beliefs, and complete the full course of their treatment regimen since TB treatment is legally recommended. If they did not, for non-compliance, the clinic could request an order from the Court House in order to isolate them in the AG Holley State Hospital in Lantana, Palm Beach County.

AG Holley State Hospital is the only remaining sanatorium within the country. It is compared to a "little jail" in the view of Haitian TB patients. A lot of patients refused to face this medical place, because once in Lantana, they could probably lose the contact with their cultural environment, and the possibility to resort to the magico-religious agents. There, they were constrained to "develop norms of conduct consistent with treatment regimen" (Menegoni, 1996) or take their medications regularly until they completed their treatment regimen.

Lantana is a hospital. It is considered as a hospital and a little jail as well. Patient over there, they cannot move from this place. They put them in a small room. In any case, whether they like it or not, they must take their medication.

As interviews indicated, the mission of the health care providers, which administrated regimens as DOT, was to really cure TB patients or the TB part in patients with HIV-co infection and help them get back to their families or re-assume their responsibilities in the community.

6. Discussion

Our discussion focuses on immigration, Haitian socio-cultural conceptions of TB, TB control programs and prevention. Currently, in United States, the list of communicable diseases of public health significance considered "inadmissible," are infectious TB, syphilis, lepromatous, Hansen's disease, HIV infection, and sexually-transmitted diseases (CDC, 2000). Therefore, significant decisions are implemented to stop their spread. In the case of TB or HIV-related TB, the most important measures to stop TB spread are associated with immigration policy.

United States immigration laws mandate an overseas health assessment for immigrants and refugees, with the intent of denying admission to persons with certain diseases of public health significance, physical or mental disorders, drug abuse or addiction, or a "likelihood of becoming a ward of the State" (CDC, 2000). However,

transgressions of their laws are widespread in Florida. Illegal immigrants continue to span Southern Florida's borders. A large number of these people are from areas of the world such as Haiti with high prevalence rates of TB, according to the World Health Organization (Granich et al., 1998). That explained why most of cases of tuberculosis reported in Broward County for the last three years beginning to 1998 were among foreign-born individuals.

In 2000, for example, the percentage of foreign-born TB patients reached 62% in Broward. Statistical data for the same year indicated that the highest percentage of reported TB cases was located at the Zip Code area 33311, one of more than 30 zip codes in Broward County. This points to the fact that TB is prevalent in the Haitian community, since Haitian people are more likely to concentrate in this Zip Code area, 33311, which counts 15% of TB cases, whereas the neighboring zip code areas in which the ethnic groups are more diversified counted 6% of TB cases maximum.

Fighting against illegal immigrant entries in the USA is the most efficient way to prevent the propagation of TB through the country. However, it was not an easy task for US immigration to control the entry of those people in United States since most of them came into US with non-immigrant visas and as boat people, while health assessment for infectious disease is required for people seeking immigrant visas only. They "entered as asylum seekers and were not examined until their hearing dates" (Granich et al., 1998). Original findings, in fact, showed two patients who recognized that they had TB and HIV/AIDS just during the time they were tested for immigration purposes in the U.S.

However, in an exceptional case, a Haitian refugee was denied entry into the U.S. due to HIV infection. He knew that he was infected just before his hearing date, due to take place in Haiti in 1993. A former asylum seeker during the period of the *coup d'état* (military putsch) in Haiti, he currently lives in Carrefour, a shanty town located at the South entry to the capital or at the South West Port-au-Prince, the capital (South Florida *Sun Sentinel*, 2001).

Most of those refugee cases reveal the *incomplete notification of suspect TB cases to the TB County programs* or TB country programs. Although the TB county programs in America, for example, cannot be blamed for the illegal entry of the refugees, they can be criticized at least for lacking credible or integrated prevention and screening activities.

As the original findings also show, the Haitian socio-cultural conceptions of TB play a significant role in the TB transmission, in the non-compliance of TB and HIV-related TB patients to TB treatment regimen. In other terms, this non-compliance is due to the fact that many Haitian people, because of their socio-cultural and magico-religious conceptions of the disease, do not rely thoroughly on the modern TB health care (Western medicine) to be treated, and the kind of prevention teaching on how to avoid catching the diseases or transmitting it. They think that their disease is a *sent disease* or someone sends the disease on them by magical means.

As Farmer (1992) indicates in his anthropological research on Do Kay, Central Plateau, Haiti, every patient "believes that he is the victim of someone's ill-will." Then, in the view of most of them, once a disease caught in this way, the disease does not attain their body deeply or their immune system, therefore they think that they cannot transmit it to their family members, close contacts or partners and they don't need to be treated by the modern medicine either. To really treat the disease, they recourse, in this case, to traditional medicine or magico-religious healing.

When we take into account this whole reality, we notice that in Broward County, the TB control programs do not focus on Haitian health and illness conceptions meshed with voodoo culture to make up the prevention and therapy programs. Because they ignore Haitian health beliefs or an ethnomedical approach to TB and HIV/AIDS in their program, they do not come to increase awareness among Haitian people of possible signs and symptoms of tuberculosis or HIV-related TB, and move toward early diagnosis. In other words, without such an ethnomedical approach, it was very difficult to elaborate a workable prevention program or tracking system to both TB and HIV/AIDS for Broward County or South Florida.

As we know, there is not a pre-existing medical knowledge of AIDS, and AIDS treatment in Haiti; prior to the arrival of AIDS from abroad and linking AIDS with traditional religious and cultural practices in Haiti is even more absurd (Farmer, 1992: 2-3). However, it is not impossible in the long run for North American researchers to draw in the vast Haitian traditional medical knowledge in a logical strategy [an integrated TB control program] which can help to prevent or to track these infectious and parasitic diseases among Haitians.

In Cuba, which has the lowest HIV infection rates in the world, there are small groups of AIDS activists who hope to use ancient *Yoruba* traditions and legends to stop the spread of this modern-day disease (Sun-Sentinel, July 2001). Cuban activists probably study *La Santeria*, a kind of West-African Voodoo. Indeed, they also know the influence of the voodoo legends or the West-African mysticism on some Brazilian people because they practice *El Condoble*. Indeed, they also know the influence of those religious components on most Caribbean people like Haitians, Cubans, Jamaicans, and other islanders because they praise Voodoo too. Therefore, they envisage through the linkage of voodoo recommendations with Western treatment means and prevention they will come to adequately motivate their fellow citizens about the diseases in question.

It might be important to envisage a counterpart program in Broward County and other parts of South Florida similar to the Cuban HIV/AIDS control program. Otherwise, the prevalence of HIV infection and HIV-related TB will continue to increase among foreign-born individuals. Although, in Broward, the total TB cases dropped about 25% between 1995 and 2000, the foreign-born TB case proportion increased about 24 %. The TB control workers were happy about the total decline, but ignored the dramatic increase of the proportion of those new cases among foreign-born individuals.

References

- Berg, B.L. (2001). *Qualitative Research Methods for the Social Sciences*, Boston/London, Allyn and Bacon.
- Bernard, H.R. (1995). *Research Methods in Anthropology (Qualitative and Quantitative approaches)*, Walnut Creek/London/New Delhi, Alta Mira Press.
- CDC. (1991). *Core Curriculum on Tuberculosis*. https://www.cdc.gov/tb/education/corecurr/pdf/corecurr_all.pdf (accessed December 16, 2021).
- CDC. (1994a). *Core Curriculum on Tuberculosis*. [https://www.google.com/search?q=CDC.+\(1994\).+Core+Curriculum+on+Tuberculosis.&oq=CDC.+\(1994\).+Core+Curriculum+on+Tuberculosis.&aqs=chrome..69i57.13438j0j7&sourceid=chrome&ie=UTF-8](https://www.google.com/search?q=CDC.+(1994).+Core+Curriculum+on+Tuberculosis.&oq=CDC.+(1994).+Core+Curriculum+on+Tuberculosis.&aqs=chrome..69i57.13438j0j7&sourceid=chrome&ie=UTF-8) (accessed December 15, 2021).
- CDC. (1994b). *Improving Patient Adherence to Tuberculosis Treatment*. <https://wonder.cdc.gov/wonder/prevguid/p0000441/p0000441.asp> (accessed December, 16, 2021).
- CDC. (2000). *TB Notes 2000*. <https://www.cdc.gov/tb/publications/newsletters/pdf/tbn1-2000.pdf> (accessed December 16, 2021).
- CDC. (2001). "HIV and AIDS in the United States, 1981-2000." *MMWR*, Vol. 50/No. 21.
- Coch, K.M. (1996). "Tuberculosis Control in Resource-Poor Settings with High Rates of HIV Infection," *American Journal of Public Health*, 86(8): 1071-1073.
- Durkheim, E. (1966). *The rules of Sociological Method*, New York, Free Press.
- Eckert, P. (1989). *Jocks and Burnouts*, New York/London, Teachers College Press.
- Fleming, P.L et al. (2000). "Tracking the HIV Epidemic: Current Issues, Future Challenges," *American Journal of Public Health*, 90 :1037-1041.
- Farmer, P. (1992). *AIDS and Accusation (Haiti and the Geography of Blame)* Los Angeles/Oxford, University of California Press.
- Gourevitch, M. et al. (1999). *Effectiveness of Isoniazid Chemoprophylaxis for HIV-infected Drug Users at High Risk for Active Tuberculosis*, *AIDS*, 13:2069-2074
- Granich, R M. et al. (1998). "Tuberculosis among Foreign-Born Residents of Southern Florida, 1995," *Public Health Reports*, vol.2, pp. 552-556.
- Glynn, J.R. (1998). "Resurgence of tuberculosis and the impact of HIV", *British Medical Bulletin*, vol. 54, no. 3, pp. 579-593.
- Helman, C.G. (1998). *Culture, Health and Illness*, Oxford/Boston, Butterworth-Heinmann.
- Keiser Family Foundation. (2001). *The AIDS Epidemic at 20 Years: The View from America*. Menlo Park: California, The Kaiser Family Foundation.
- Lawn, S.D. et al. (1999). « Sustained Plasma TNF- α and HIV-1 load despite resolution of other parameters of immune activation during the treatment of tuberculosis in Africans", *AIDS*, 13:2231-2237.

- Lindenbaum, S. & Lock, M. (1993). *Knowledge, Power, and Practice*, Berkeley/Los Angeles/London, University of California Press.
- Menegoni, L. (1996). "Conceptions of Tuberculosis and Therapeutic Choices in Highland Chiapas, Mexico," *Medical Anthropology Quarterly*, 10(3): 381-401.
- Rubin, H.J. & Rubin, I.S. (1995). *Qualitative interviewing (The art of hearing your data)*, Thousand Oaks/London, Sage.
- Ryder R.W. et al. (2000). "Effect of HIV-1 Infection on Tuberculosis and Fertility in a Large Workforce in Kinshasa, Democratic Republic of the Congo." *AIDS Patient Care and STDs*, Vol. 14(6):297-304.
- South Florida Sun-Sentinel*, (2001, June 10). South Florida Sun-Sentinel Special Report Investigates HIV-AIDS in the Caribbean. www.sun-sentinel.com/news/local/cuba/sfl-hbauza01jul010.story (accessed December 17, 2021).
- Spiegler, P. & Llowite, J. (1999). "Multiple-drug resistant tuberculosis," *Emergency Medicine*, pp.10-23.
- Spradley, J.P. & McCurdy, D. (1988). *The Cultural Experience (Ethnography in Complex Society)*, Illinois, Waveland Press.
- Vecchiato, N.L. (1997). "Socio-cultural Aspects of Tuberculosis Control in Ethiopia," *Medical Anthropology Quarterly*, 11(2):183-201.
- US Census Bureau 2000.
- US Department of Health, Education, and Welfare. (1974). *Tuberculosis*. <https://www.google.com/search?q=US+Department+of+Health%2C+Education%2C+and+Welfare.+1974+Tuberculosis.&oeq=US+Department+of+Health%2C+Education%2C+and+Welfare.+1974+Tuberculosis.&aqs=chrome..69i57.6022j0j7&sourceid=chrome&ie=UTF-8> (accessed December 15, 2021).