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WOMEN'S HOSPITAL

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HIV Voluntary Counseling and Testing in Hinche, Haiti

On the day in January 2004 that Dr. Jonas Rigodon arrived in Hinche to begin working at the hospital there, soldiers marched over the Massif du Nord Mountains into the city. January 2004 marked Haiti's two-hundredth anniversary as an independent nation. Anti-government sentiments had been brewing in the preceding months, and several opposition groups were gaining a foothold.^{1,2} As these opposition groups gained power and violence broke out, the US government froze millions of dollars of previously promised economic aid to Haiti. Rigodon and his team from Zanmi Lasante (ZL), a non-governmental organization (NGO) with 20 years of experience providing health care in Haiti's Central Plateau, were charged with expanding ZL's HIV Equity Initiative to Sainte Thérèse Hospital in Hinche, the capital city of the Central Department (one of Haiti's 10 administrative regions). Dr. Raoul Rafael, the Minister of Health for the Central Department, had invited ZL to partner with the Ministry of Health (MOH) in Hinche because he was troubled by the performance of Sainte Thérèse's HIV/AIDS voluntary counseling and testing (VCT) services. In 2003, only 306 patients, 43 of them HIV positive, had come for HIV/AIDS screening in the first 12 months that the VCT center was open. Rafael knew that this was a small fraction of the HIV-positive people in Sainte Thérèse's catchment area of 50,000.

In the climate of increasing political unrest, there was no way for Rigodon and his team to secure the hospital. In addition to safety concerns, the team neither had appropriate working space, nor had it worked out an agreement with Sainte Thérèse's hospital director on how the ZL and MOH staff would work together. Despite these adversities, Rigodon and his team were confident they would succeed.

Overview of Haiti

The Republic of Haiti occupied the western third of the island of Hispaniola and shared its 360km eastern border with the Dominican Republic (see **Exhibits 1** and **2** for maps).³ In 2004 only some of the poorest nations in Africa surpassed Haiti in poverty measures.⁴

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History

Haiti's history was marked by foreign domination, political instability, and poverty.⁵ European occupation, dating from the wreckage of Christopher Columbus's Santa Maria in 1492, had brought disease and slavery to the indigenous population. Within 50 years of Columbus' landing, the majority of the two to four million indigenous inhabitants were dead. By 1664 the French West Indian Company took over the western third of Hispaniola, making it a part of their Saint-Domingue territory. In 1697 Spain ceded control of that part of the island to France.

Saint-Domingue was one of the most brutal and profitable colonial regimes in the world and its economy relied on African slave labor. Tobacco and indigo were Saint-Domingue's first crops, but sugar quickly emerged as the most important. Sugar plantations fueled dramatic increases in the slave population. From 1681 to 1713, Saint-Domingue's slave population increased ten-fold.⁵ Sugar plantations came to occupy all of the best arable land, and coffee farms were built in the mountainous interior regions of the island. Saint-Domingue became the world's top producer of both sugar and coffee.⁶

On August 25, 1791, the slaves of Saint-Domingue, outnumbering French colonists nine to one, launched the only successful slave revolt in world history. When Haiti formally won its independence from France in 1804, it became the first black republic in the world and the second independent republic in the Western Hemisphere, following only the United States (US). Haiti ratified its first constitution that same year.

Recovering from a devastating revolutionary war and isolated from the world's economy, the next years were difficult for Haiti. In 1825, under threat of bombardment from French warships, Haiti was forced to pay today's equivalent of roughly USD 21 billion in reparations to France in exchange for France's recognition of Haiti as a sovereign nation.⁷ Haiti presumed that trade and diplomatic ties with France would open substantially with this arrangement, yet they did not. Haiti continued to pay these "reparations" until 1883.

Despite engaging in active trade with Haiti, the US did not recognize Haiti's independence until 1851. In 1915 violent rebellion leading to the assassination of then President Guillaume Sam spurred the US government to occupy the country. From 1915 to 1934, the US government assumed complete control of Haiti's finances as well as all public health and public works programs.⁸

This legacy of violence, political instability, and self-interested foreign intervention persisted. From 1957 until his death in 1971, Francois Duvalier ("Papa Doc") ruled Haiti as a dictator with unprecedented ruthlessness. Duvalier's personal security force, *Tonton Macoutes* (the Volunteers for National Security), killed as many as 30,000 Haitians.² Yet, ostensibly as protection against the spread of communism, Duvalier received continuing support from the US.

The Haitian economy went into a steep decline under Duvalier's son Jean Claude ("Baby Doc"), who succeeded his father at the age of 19 as "president for life," and who ultimately fled the country in 1986 on a US cargo plane. Over the ensuing decade, a series of military coups — and consequent economic embargoes and freezing of foreign aid — presaged further socioeconomic collapse.

Emerging as a political leader in the tumultuous years following the Duvalier family dictatorship, Jean Bertrand Aristide, a former Catholic priest, became Haiti's first democratically elected president in 1990. Aristide and the Lavalas party took 67% of the vote in a field of 11 candidates. President Aristide took office on February 7, 1991, but was deposed by a military coup d'état just eight months later. He spent the majority of his exile in the US until he returned to power in October 1994, following a US military invasion. One of Aristide's many reforms after re-claiming office was to disband the Haitian Army. He served the

brief remainder of his original five-year term until fellow Lavalas party member René Préval succeeded him in 1996 in the first peaceful transition of presidential power in Haiti's history.

President Aristide was elected to office again in 2000 by an overwhelming majority. In 2004, with violence increasing across the country — largely at the hands of former Haitian Army soldiers supported by Haitian elites — Aristide ceded power for the second time. Some claim that he was forcibly removed from power in a coup d'état and kidnapped by US government officials. Others, including then US Secretary of State Colin Powell, have called this claim "absolutely baseless, absurd."⁹ Aristide and his family left Haiti on February 29, 2004, on an unmarked US airplane bound, unbeknownst to the plane's passengers, for the Central African Republic.

Economy and Infrastructure

In 2004 Haiti's gross domestic product (GDP) per capita in purchasing power parity (PPP) was USD 1,600 (1,066 international dollars).³ (By comparison, per capita GDP in the neighboring Dominican Republic was roughly USD 5,250.) Distribution of wealth was uneven; 80% of the population lived in poverty and 55% in abject poverty. In 2003 the minimum wage was raised from USD 1.02 to USD 1.99 per day.¹⁰ In 2002 more than two-thirds of the labor force had no formal job. Unskilled workers constituted a majority of the labor force, and skilled workers remained in severe shortage.⁸

Transportation and telecommunications infrastructure in Haiti were minimal, as was access to other facilities. With no structured or subsidized public transportation system, most Haitians traveled by foot, animal, informal trucks and buses, or private car. The network of roads built during the US occupation, from 1915 to 1934, received little repair or maintenance. Haiti had the lowest telephone coverage in the region, but cellular phone coverage was increasing dramatically, serving remote areas of the country for the first time.¹¹

Haiti had five mountain ranges that split the country into three regions. The island was vulnerable to natural disasters, including floods and hurricanes. Nearly two-thirds of the country was covered by inclines of 20% or more, such that only 28% of Haiti's land was considered arable. Widespread deforestation, soil destruction, and poor agricultural output contributed to food insecurity. For administrative purposes, Haiti was divided into 10 departments. The departments were further subdivided into 133 municipalities and 561 districts.

Demographics

In 2004 roughly 95% of Haitians self-identified itself as black, with the remaining 5% identifying as mulatto or white. French and Haitian Kreyol were Haiti's official languages. Under Aristide's leadership, education improved, and school attendance rose from 20% in 1994 to 64% in 2000. Nonetheless, shortages of funding, teachers, and educational supplies plagued Haiti. Ninety percent of students attended church-run or international private schools rather than state-run institutions.¹¹

Basic Socioeconomic and Demographic Indicatorsⁱ

INDICATOR		YEAR
UN Human Development Index ranking	154 out of 177	2004
Population (thousands)	9,410	2005
Urban population (%)	42.7	2005
Drinking water coverage (%)	46	2004
Poverty rate (% living under USD 1.25 per day)	55	2004
Gini index	60	2001
GDP per capita in PPP (constant 2005 international dollar)	1,066	2004
GDP per capita in constant 2000 USD	402	2004
Literacy (total, female, male)	53, 51, 55	2004

Health in Haiti

In 2004 insufficient access to basic health care, clean water, and nutrition plagued the country. Just 30% of the population had access to adequate sanitary facilities — 57% of the urban population and 14% of the rural population. Only 46% of the population had access to clean drinking water, and roughly 50% of the population was considered food insecure.^{12, 13} Life expectancy at birth was 10 to 15 years younger in Haiti than elsewhere in Latin America and the Caribbean.¹⁴ Haiti had the highest infant mortality rate and maternal mortality ratio in the Western Hemisphere (see **Exhibits 3a** and **3b** for a comparison between Haiti's population health statistics and those of its neighbors).

In 2002 HIV/AIDS was the leading cause of death among all ages in Haiti (22%), followed by lower respiratory infections (7%), cerebrovascular disease (6%), meningitis (5%), diarrheal disease (5%), perinatal conditions (4%), and tuberculosis (4%).¹⁵ Pneumonia and diarrheal disease were the most significant causes of under-five mortality. The World Health Organization (WHO) estimated that over the three-year period from 2004 to 2006, the average incidence of smear-positive pulmonary tuberculosis (TB) in Haiti was 133 per 100,000. In comparison, the incidence rate over the same period in the Dominican Republic was 40 per 100,000; in Jamaica it was 3 per 100,000.¹⁶

Health System and Epidemiologic Indicatorsⁱⁱ

INDICATOR		YEAR
Average life expectancy at birth (total, female, male)	61, 63, 59	2006
Maternal mortality ratio (per 100,000 live births)	670	2005
Under five mortality rate (per 1,000 live births)	84	2005
Infant mortality rate (per 1,000 live births)	62	2005
Vaccination rates (% of DTP3 coverage)	51	2004

ⁱ This data was comprised from the following sources: United Nations (UN), United Nations Children's Fund (UNICEF), World Bank, United Nations Educational, Scientific, and Cultural Organization (UNESCO).

ⁱⁱ This data was comprised from the following sources: WHO, UNICEF, UN.

INDICATOR		YEAR
Undernourished (%)	58	2004
Adult (15-49 years) HIV prevalence (per 100,000)	3,377	2006
HIV antiretroviral therapy coverage (%)	26	2006
Tuberculosis prevalence (per 100,000)	441	2004
DOTS coverage (%)	55	2004
Malaria cases (per 1,000)	17	2006
Government expenditure on health as a % of total government expenditure	8.6	2004
Government expenditure on health per capita (international dollar, USD)	36, 14	2005
Total health expenditure per capita (international dollar, USD)	71, 28	2004
Physician density (per 10,000)	3	1998
Nursing and midwifery density (per 10,000)	1	1998
Number of hospital beds (per 10,000)	8	2000

Health System

The government entities responsible for public health and the health care system included the Ministry of Public Health and Population (MSPP) and the Ministry of Social Affairs. The Ministry of Health (MOH), a part of the MSPP, had offices at the central, departmental, and community levels. The role of the central MOH was to set standards; departmental-level offices planned, monitored, and supervised public health and medical care services. The Municipal Health Units, working in close collaboration with the community, were in charge of carrying out the health care activities themselves.¹⁷ The public sector owned one-third of the country's 633 health institutions.¹²

The Ministry of Health presented a health sector reform strategy in 1998, with the declaration that health was a fundamental human right. The plan called for the decentralization of the Ministry of Health and for a primary health care model to serve as the basis for national health programs.¹⁸ However, the Ministry of Health remained weak and was not able to implement its national health policy plan fully, despite total per capita health spending in Haiti doubling from USD 12 in 1994 to USD 24 in 1999. Much of the external funding went directly to NGOs, weakening the MOH leadership.¹⁷

In 2002 a new program to “restructure and rationalize” the national health system was launched, but by 2003, health services reached only 60% of the population. There were 371 health posts, 217 health centers, and 49 hospitals. Between 15% and 45% of hospitalized patients in urban areas were infected with HIV.¹⁹ It was estimated that 40% of the population — mostly in rural areas — relied on traditional medicine.²⁰ Public spending on health care accounted for 2.9% of GDP.⁴ This public spending on health care was affected by the embargo against foreign aid to Aristide's government. As a result, the MOH remained largely unable to operate a functioning health care infrastructure, and foreign-based NGOs ran many of the departmental hospitals.²¹ Nationwide, there was one physician for every 3,500 citizens; this ratio was even lower in rural areas (see **Exhibits 4a** and **4b** for a comparison between Haiti's health care system statistics and those of its neighbors).²²

HIV/AIDS Epidemic in Haiti

Haiti was home to the worst HIV/AIDS epidemic in the Western Hemisphere. The epidemic emerged in Haiti around the same time that it appeared in the US. Haitian immigrants were one of a few groups in the US initially identified as high-risk for HIV – a fact that fueled speculation, which was ultimately rejected, that HIV might have originated in Haiti and spread from Haiti to the US.)²³ This speculation, however, led to a precipitous and economically disastrous decline in tourism to Haiti.

In 1983 studies showed that 74% of HIV-positive men who presented with opportunistic infections lived in the capital city, Port-au-Prince, which was home to only 20% of Haiti's total population. Of those men from Port-au-Prince, 33% lived in the suburb of Carrefour – a hotbed of male and female prostitution.²⁴ In the early 1980s, risk factors for transmission – multiple sexual partners, homosexual encounters, blood transfusions, and injection drug use – appeared similar for patients in the US and Haiti,²⁵ but the gender distribution of infection was different, with rates of HIV infection growing much faster among women in Haiti. By 1985 heterosexual transmission was the predominant route of infection, and the male-to-female ratio was 3:1 in Haiti compared with 14:1 in the US.²⁶

In 2000 about 20,000 Haitian children younger than 15 had HIV. Approximately 30,000 people died of AIDS in 2001, and 196,000 had died from AIDS since the start of the epidemic.²⁷ Haiti had the highest adult HIV prevalence in Latin America and the Caribbean by 2002.²⁸ The WHO estimated in 2006 that adult (15-49) HIV prevalence in Haiti was 3.4%.

Severe poverty, low literacy rates, persistent political instability, internal migration, and high rates of other sexually transmitted infections fueled Haiti's epidemic.²⁹ As an increasing number of women were infected with HIV, vertical transmission of HIV from mothers to children became common. In the US, in 2002, transmission rates from mother to child following combination antiretroviral therapy were 1.2%.³⁰ That year in Haiti, where such therapy was minimally available, rates of mother-to-child HIV transmission were roughly 27%.³¹

HIV/AIDS Prevention and Treatment

The Ministry of Public Health and Population created a technical commission for AIDS in 1983 and another in 1985. The Haitian Group for the Study of Kaposi's Sarcoma and Opportunistic Infections (GHESKIO), a private organization, recognized the early manifestations of the epidemic in Haiti and spearheaded a coordinated public and private response to the disease. GHESKIO physicians published the first paper on tropical AIDS in the *New England Journal of Medicine* in 1983.³²

Shortly after the fall of the Duvalier regime in 1987, Haiti founded its first National AIDS Commission, and the Ministry of Health created an AIDS Coordination Bureau to organize the MOH and NGO efforts to fight HIV/AIDS. Political instability hampered these efforts, however, and they fell apart following a military coup in 1991, when all foreign aid stopped.

NGOs implemented and coordinated most HIV/AIDS activities throughout the 1990s with little government support. They focused on prevention, treatment, and support services, with activities targeting behavioral change and communication, condom promotion, prevention for special groups such as female sex workers, combination antiretroviral treatment, and care and support for people living with HIV/AIDS (PLWHA) and for orphans and vulnerable children (OVC).³³

On May 7, 2001, President Aristide and the MSPP rolled out the 2001 Interim Strategic Plan for HIV/AIDS and launched the development of a government-led, five-year strategic plan for combating HIV/AIDS in Haiti. This effort was grounded in Aristide's declaration that "everyone has the right to live."³⁴

Its purpose laid out steps to combat HIV/AIDS in Haiti. Many different stakeholders — including President Aristide, members of the MSPP, and members of ZL and other NGOs — participated in developing the national plan.

The goals for 2002–2006 were: (1) to reduce the HIV infection rate by 33%, (2) to reduce the levels of sexually transmitted infections by 50%, and (3) to reduce mother-to-child HIV transmission by 50%. Given the fragmented nature of the health care delivery system in Haiti, the plan aimed to create mechanisms for close collaboration between the government and the diverse NGOs working on HIV/AIDS care. At the heart of the plan was empowering the citizen and patient, with a particular focus on women. The plan laid out a strategy to increase access to and utilization of VCT for HIV by building 17 stand-alone VCT centers throughout the country. One of these VCT centers was to be built in Hinche.

The MSPP national plan was unfunded, however, and until money was available, it was a blueprint that could not be put into action.

Funding Response

Around the time Haiti was developing its Strategic Plan for HIV/AIDS, major changes occurred to the international funding landscape. At the April 2001 African Summit in Abuja, UN Secretary General Kofi Annan called for the creation of a single fund to fight AIDS, tuberculosis (TB), and malaria. In January 2002 the Global Fund to Fight HIV/AIDS, Tuberculosis and Malaria (the Global Fund) was founded.^{35,5}

Unlike many other global health funding mechanisms, the Global Fund required that all stakeholders within a given country apply collectively, not as individual governmental and non-governmental organizations. To facilitate this process, the Global Fund required each country to develop a Country Coordinating Mechanism (CCM). First Lady Mildred Trouillot Aristide chaired Haiti's newly formed CCM, which included 25 stakeholders. Because the Haitian government was under a de facto aid embargo imposed by the US,³⁶ Haiti's CCM feared that the US Government — a major contributor to the Global Fund — would block Haiti's funding application. Thus, the CCM de-funded the MOH in its Global Fund application in order to avoid a conflict. All funds would go to NGOs. Participating organizations agreed to work in conjunction with the MOH.

In 2002 the Global Fund granted Haiti USD 66.9 million to scale up its HIV/AIDS prevention and treatment efforts over the next five years, including building a network of 25 VCT sites.

GHEISKO began offering ART in 2003.³⁷ Organizations such as Zanmi Lasante, which began providing treatment to a small number of patients in 1998, expanded their reach.³⁸ Access to treatment remained low, however, and national coverage was limited, with components of the treatment eligibility criteria considered “too strict” by some.³⁹

Hinche

In 2004 Hinche, the capital of the Central Department, had a population of 50,000. As the largest city in the Central Plateau, Hinche was the political and economic hub of the region. It was roughly 50 miles from Port-au-Prince, but traveling there took at least five hours on the unpaved, single-lane road. Farmers walked or rode donkeys, often traveling four to six hours, to buy or sell goods in Hinche's main market. Hinche also had a dirt airstrip in front of the hospital complex on which single-engine planes or helicopters could land.

Sainte Thérèse Hospital

Hôpital Sainte Thérèse de Hinche was the referral hospital for the Central Plateau. Dr. Raoul Rafael, the Minister of Health for the Central Plateau, was based in Hinche. Rafael cared deeply about the quality of care and reputation of the facilities under his purview. He had seen many outside offers of assistance fall short of expectations and decided to pool the limited resources he was allotted and devote them to Sainte Thérèse. Therefore, unlike the other state-run medical clinics — which had been mostly or completely closed — the hospital in Hinche was open and operating, albeit with limited impact. Dr. Pierre Paul, who had served as one of the social service residents in Hinche in 2002 and 2003, recalled that patients were afraid of the hospital, seeing it as a place to die instead of a place to get well. According to Paul, community members “had some confidence in the doctors because they knew that they were from Port-au-Prince,” but they had no faith in the hospital and would beg the doctors, “just come to my house or I can come to your house. ... I just don’t want to be treated in the hospital.”

- **Facilities:** The Sainte Thérèse hospital complex consisted of an outpatient clinic, an emergency room, an operating room, a 66-bed inpatient facility, a laboratory space, and a TB sanatorium. In addition, the complex was home to MSPP offices for the Central Department, a small convent, and a for-profit pharmacy run by the nuns who lived on the hospital grounds. The nuns operating the pharmacy sold drugs at market rate; sales from the pharmacy served as their primary source of income.
- **Staff:** The medical staff for the hospital consisted of a Haitian medical director, six Cuban physicians, six Haitian physicians completing their required one-year social service residency, and a number of nurses. The Cuban physicians were part of a large volunteer brigade that committed to at least two years on location and were paid by the Cuban government. Many of the Cuban physicians throughout Haiti did not have training in HIV/AIDS or TB, less common health problems in Cuba. The medical director was an obstetrician by training. Although he was charged with running the hospital, he spent the majority of his time seeing private patients at a nearby clinic.
- **Fees:** Like all MSPP hospitals nationwide, health care at the hospital was provided on a fee-for-service basis. Each consultation cost USD 0.71. Tests, procedures, medical supplies, and drugs cost additional. If, for example, someone needed an emergency surgery, the initial consultation, procedure, anesthesia, and required medical supplies were all charged separately.
- **Patient volume:** As Dr. Maxo Luma, one of Sainte Thérèse’s physicians, described, the hospital had 66 patient beds, but usually only 10 to 15 beds were filled at any given time. Some of the patient wards had been “taken over by goats. ... There were not mattresses on the beds, and so the goats were up on the beds.” Paul described his service at Sainte Thérèse as “the period in my life when I was most free. I spent a lot of time in Port-au-Prince because I didn’t have any work to do. ... We finished seeing all of our patients by 11 a.m.”

Voluntary Counseling and Testing at Sainte Thérèse

The HIV VCT Center at Sainte Thérèse began operating in 2003. Three health care workers trained and employed by an NGO — a physician, nurse, and lab technician — staffed the facility. The physician and nurse solely did VCT pre- and post-test counseling, and the lab technician solely did HIV testing. The VCT center was an office in the outpatient clinic with a plaque above the door that read “prenatal care” (see **Exhibit 5** for a photograph of the VCT room). VCT patients usually came via a referral from the ambulatory clinic or the hospital. VCT services were not advertised to the community or other hospital staff members.

Although VCT was free, most patients had already paid for a clinic visit at the hospital. After referral, the wait times for appointments ranged from minutes to overnight. The pre-test counseling session and questionnaire took roughly 30 minutes. The clinic usually closed by 1 p.m., even when it had not reached its mandated limit of 10 patients per day.

The VCT clinicians were well trained, but according to Paul, they “didn’t have the tools to start work.” They were supposed to get “a desk, a computer, and the materials; they didn’t give them the materials.” The physician “did what he was asked: he sat in the VCT center and tested those that came. ... He didn’t have the capacity or infrastructure around him to do more.” There was no treatment available at the hospital for those who were HIV positive.

HIV testing was available at that time for free in Port-au-Prince, at Zanmi Lasante’s facilities in the Central Plateau, and at private labs in Hinche, which offered HIV testing for varying prices. Sainte Thérèse tested 306 patients in 2003, of whom 43 were HIV positive.

Zanmi Lasante and Partners In Health

ZL was formed in 1983 as a community-based health clinic for people living in the Central Plateau. Partners in Health (PIH), a Boston-based nonprofit corporation, was founded four years later to support ZL’s work. The community-based care model PIH supported was founded on five fundamental principles: (1) access to primary care, (2) free health care and education for the poor, (3) community partnerships, (4) addressing basic social and economic needs, and (5) serving the poor through the public sector.⁴⁰ Doctors, nurses, pharmacists, lab technicians, social workers, and an extensive network of paid community health workers staffed ZL. Though separate legal entities, ZL and PIH worked together closely.

In Cange, ZL and PIH built the largest health care facility in the Central Plateau. In 1995, soon after zidovudine (AZT) demonstrated its efficacy in preventing mother-to-child transmission of HIV in the developed world, ZL and PIH established one of the world’s first programs to provide AZT free of charge to all HIV-positive pregnant women. VCT uptake increased dramatically in Cange. For the first time, the portion of negative tests overtook that of positive tests. More than 90% of seropositive pregnant women took AZT. In 1998 PIH and ZL launched the world’s first program to provide free, comprehensive HIV care and treatment in an impoverished setting, which, by 2000, became known as the ZL HIV Equity Initiative.

ZL termed the components of its HIV Equity Initiative “the four pillars.” They included: (1) AIDS prevention and treatment in the context of primary care, (2) advancing TB care, (3) improving treatment and screening of sexually transmitted infections, and (4) emphasis on women’s health. Most HIV testing took place in primary care or prenatal clinics. Patients who underwent HIV testing were counseled about the procedure, blood was drawn, and a rapid test was performed. If they tested negative, patients would be counseled on ways to protect themselves and their loved ones. Patients who tested positive for HIV were enrolled in ZL’s comprehensive care and treatment program and started antiretroviral therapy (ART) when clinically indicated.

When Haiti received Global Fund money in 2002, ZL received USD 2.4 million annually to expand to 11 sites within the Central Plateau. Dr. Paul Farmer, a clinician at ZL and a member of its governing executive committee, responded to this influx of funding.

The rate-limiting factor has always been money. It’s always been medications. And now, for the first time, when the Global Fund money comes through, our rate-limiting factor will be that we won’t have enough time, we won’t have enough staff... but it won’t be money.⁴¹

ZL was charged with continuing to provide comprehensive HIV/AIDS service in Cange and to expand this effort to four new sites within the Central Department. PIH capitalized on the increased funding for HIV/AIDS, calling this surge in disease-specific funding its *chwal batay* (war horse) with which to continue its battle to redistribute resources to the poor and to build infrastructure for providing primary health. In 2001 ZL had 30,000 patient visits in Cange. In 2002 it provided 90,000, and by the end of 2003, ZL was operating its central facility in Cange as well as four newer satellite facilities in Lascahobas, Boucan Carré, Belladère, and Thomonde. These five sites received 340,000 ambulatory visits.

ZL Care Model

Daily visits from paid community health workers (CHW) formed the backbone of ZL's patient care model. ZL's CHW network was divided into four distinct categories: (1) *accompagnateurs*, (2) *Ajan Sante* (community health agents), (3) *Ajan Fanm* (women's health agents), and (4) *matrons* (traditional birth attendants). All four groups played important roles (see **Exhibit 6** for job descriptions).

When ZL moved to a new site, it would build this network of community health workers by asking HIV/AIDS patients to identify someone, other than a family member, whom they would want to serve as their *accompagnateur*. The *accompagnateur* was required to have basic literacy (i.e., be able to sign his or her name). Once identified, the *accompagnateur* met with a member of the ZL team for an initial training about his or her role and responsibilities. In particular, the trainer emphasized the importance of confidentiality. As one trainer instructed his staff during a meeting, "This is an inflexible part of the job; if we ever hear that you have talked about the diagnosis, you will lose your job." Each month thereafter, a member of the ZL team would meet with the *accompagnateurs* for a continuing education program.

Communication between the medical team and the community health worker was important. If someone developed nausea and vomiting and couldn't take their pill, or if they became too weak to come in, the *accompagnateur* let the medical team know what was going on. Community health workers worked with the pharmacists at least once per month to pick up their patients' medications for the following month and often stopped by the infectious disease pavilion to talk with a doctor or nurse about a particular patient.

When patients came in for appointments, the clinicians or social workers assessed their socioeconomic needs in addition to their medical needs. Social workers conducted home visits for selected patients with HIV and TB to help coordinate their care as a supplement to the support provided by the *accompagnateur*. The home visits also allowed for in-person assessment of the patient and family's needs. ZL had developed a rubric of individual, family, and community factors that increased a patient's risk for poor outcomes. These assessments were used to target certain social interventions. ZL provided transportation assistance and nutritional support for patients who needed them. It supported home building, microfinance projects, and payment of educational fees in more extreme cases. As Dr. Maxo Luma, one of the physicians in Hinche, described, "Even if you can physically make someone better, and you put them back in the same socioeconomic conditions, then they are going to get sick again."

Additional Programs

Aside from the HIV Equity Initiative, ZL and PIH's key projects included Proje Sante Fanm and the Program on Social and Economic Rights (POSER). Proje Sante Fanm was a women's health system that offered family planning, pre- and post-natal care, assisted deliveries and Caesarean sections, vaccination of women and children, and screening and treatment of HIV, other sexually transmitted infections, and cervical cancer. This program was founded prior to the HIV Equity Initiative and had been integrated into "the four pillars" approach.

POSER was founded on the belief that meeting patients' social needs was just as important as meeting their medical needs. POSER's key projects included providing ZL patients with nutritional support, building homes for patients most in need, paying school fees for patients' families who were unable to do so, and building well caps or filtration systems for communities to ensure access to clean drinking water. POSER operated in concert with the HIV Equity Initiative to best serve the communities in which ZL worked (see **Exhibits 7 and 8** for more on factors used to assess social needs and POSER initiatives).

Management Structure

Project sites within ZL's HIV Equity Initiative received support and management from many levels: (1) the medical staff at that site; (2) ZL's Central Administration Department in Lascahobas; (3) ZL's *Comité Exécutif* (CEX) governing body in Cange; and (4) the Partners In Health office in Boston.

A physician led each site's medical team. All sites also had a head nurse, a head pharmacist, a social worker, and a head nurse-midwife. Formal job descriptions for these positions did not exist, but this team was responsible for daily management and operations of the clinics. The central administration coordinated the accounting and administration for all of ZL's sites. The 10-member CEX board included the program managers of each of ZL's key initiatives in Haiti. Each CEX member met regularly with their program staff and the CEX itself on a weekly basis. The ZL CEX was responsible for strategic planning and implementation of the work in Haiti. PIH facilitated and supported their work from Boston through project management, drug procurement, fundraising, and provision of other key supports.

Every Wednesday night, the core medical teams from all of ZL's sites in the Central Plateau met together. These meetings covered logistical or operational questions, any changes in policy or formularies, and also served as a forum in which to raise issues or concerns from the field. Meetings regularly included an academic presentation by a selected staff member. These weekly meetings were important for staff morale, providing a time for friends and colleagues to catch up informally. Food, music, and dancing regularly followed meetings. Because some staff members traveled significant distances to meetings — which sometimes lasted many hours — they would come prepared to spend the night.

Committing to Hinche

When the Central Department's Minister of Health, Dr. Rafael, asked ZL and PIH to help revitalize HIV services in Hinche, ZL had several concerns, but chief among them was funding. While ZL was scheduled to receive USD 2.4 million annually from Haiti's Global Fund grant to expand to 11 sites within the Central Plateau, a year and half into the expansion it was clear that the Global Fund money was only enough to fund ZL's first five sites.

The obvious source for additional funding was President George Bush's Emergency Plan for AIDS Relief (PEPFAR). ZL and PIH had never taken money directly from the US Government because the PIH team in Boston was reluctant to do so. One PIH director wrote, "I know that the workload and patient numbers continue to increase in the *plateau central* and the idea of more money from the US is extremely tempting ... [but] for some time we have made a deliberate decision not to accept money from the US Government for reasons that have become more and more evident as we have watched the US violently destroy democracy in Haiti."

The ZL team in Haiti pushed back, however. ZL's clinician leaders were deeply committed to expanding their work to Hinche and the Northern regions. They understood that Hinche — the capital of the region, located on the Central Plateau's main road — was a more natural center for their work than

Cange, the rural area where ZL started the HIV Equity Initiative. They felt that if PEPFAR money provided an opportunity to expand, they had a responsibility to their patients to take it.

PIH and ZL ultimately decided to apply for PEPFAR funding with several stipulations. They advocated for the money to be funneled through the US Centers for Disease Control (CDC), which they felt was health-centered and non-political, and had a mission they believed in. PIH, rather than the usual ZL team, would take primary responsibility for dealing with the grant application, logistics, bureaucracy, and negotiations. Finally, PIH and ZL would use their status as a grant recipient for advocacy.

Arriving at Sainte Thérèse

In January 2004 ZL asked Jonas Rigodon, MD, MPH, who completed his social service residency in nearby Thomonde in 2002 and began working full time for ZL immediately afterward, to revitalize VCT services at Sainte Thérèse. Rigodon would lead a team, which included a nurse, a pharmacist, and a nurse-midwife. That same month, PIH successfully applied for PEPFAR funding.

Their first grant period began on March 1, 2004. However, the PEPFAR funding would not be enough to cover the HIV Equity Initiative expansion in Hinche. ZL's approach to HIV care was quite different from that of other organizations, and many facets of its program were not recognized by the funding communities as relevant or necessary to providing HIV/AIDS care. Therefore, ZL's leaders had think carefully about their model and rely substantially on other funding sources — the Global Fund and private donations — to finance the expansion to Hinche.

The newly assembled team relocated to a shared house in Hinche to begin work in the hospital in May. In addition to working with Sainte Thérèse's hospital director, the ZL team had to collaborate with Dr. Rafael, who was also based in Hinche. Dr. Rafael's two main requests of ZL were to, first, help rehabilitate the TB ward, and, second, build a wall around the hospital to keep the animals out. Even though the ZL team saw no need for a compound wall and would have preferred that the grounds remain fully open to and continuous with the rest of the community, ZL agreed to do both.

As Rigodon saw it, ZL's first task in Hinche was to track down the 43 patients who had tested positive for HIV in the past year and start those patients for whom it was clinically indicated on ARVs. Rigodon went to the laboratory registrar to find information on the HIV-positive patients, but he found that their address records were vague or missing. It took him and the team two months to track down 15 patients — most of whom required immediate treatment for opportunistic infections and ART. Some of the remaining patients could not be found.

Rigodon conferred with his team about their next steps.

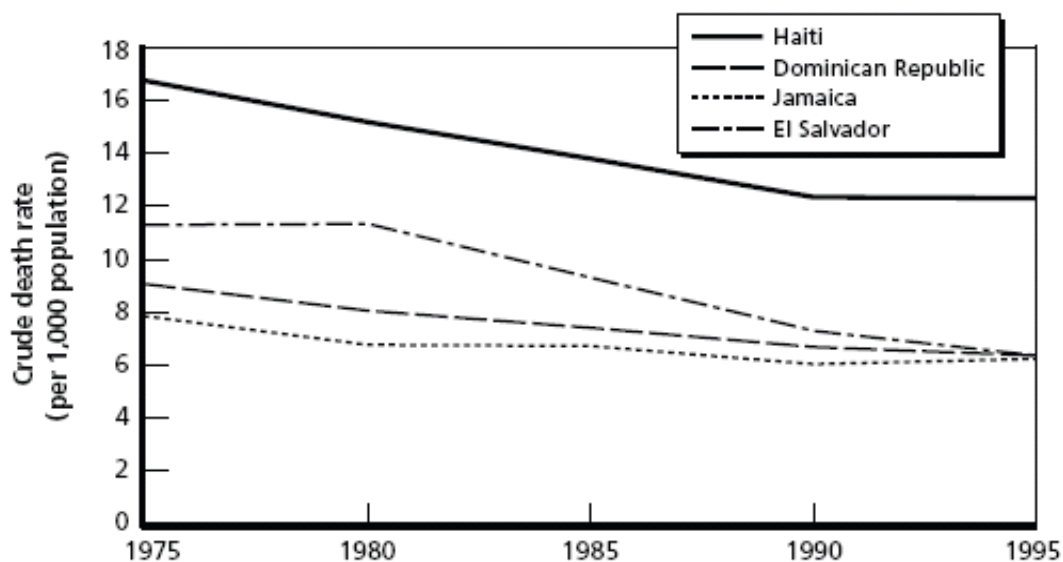
Exhibit 1 Map of Haiti



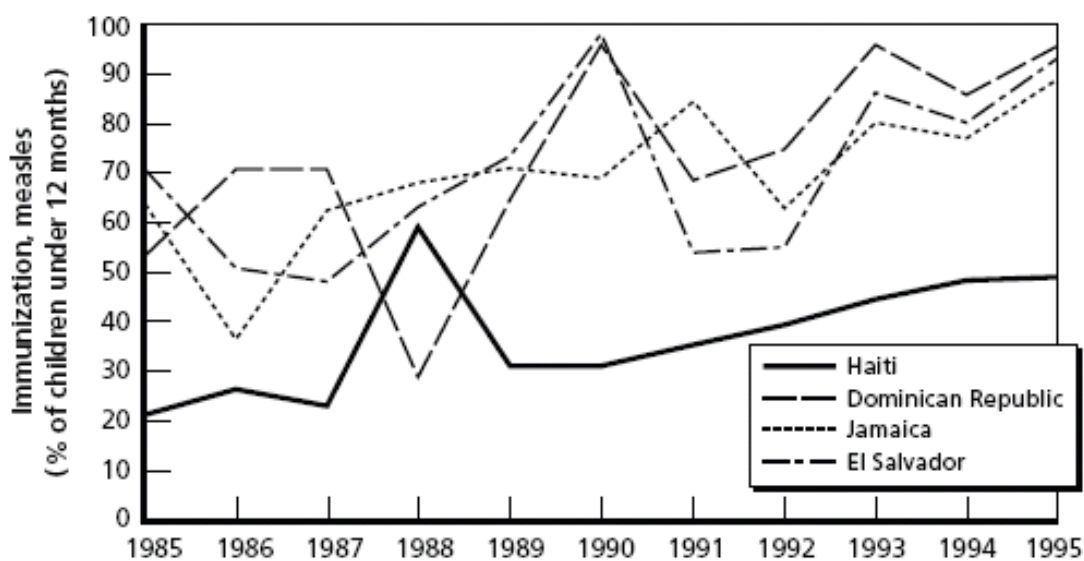
Source: United Nations. Available at www.un.org/Depts/Cartographic/map/profile/haiti.pdf.

Exhibit 2 *PIH/ZL Sites in Centre, Haiti*

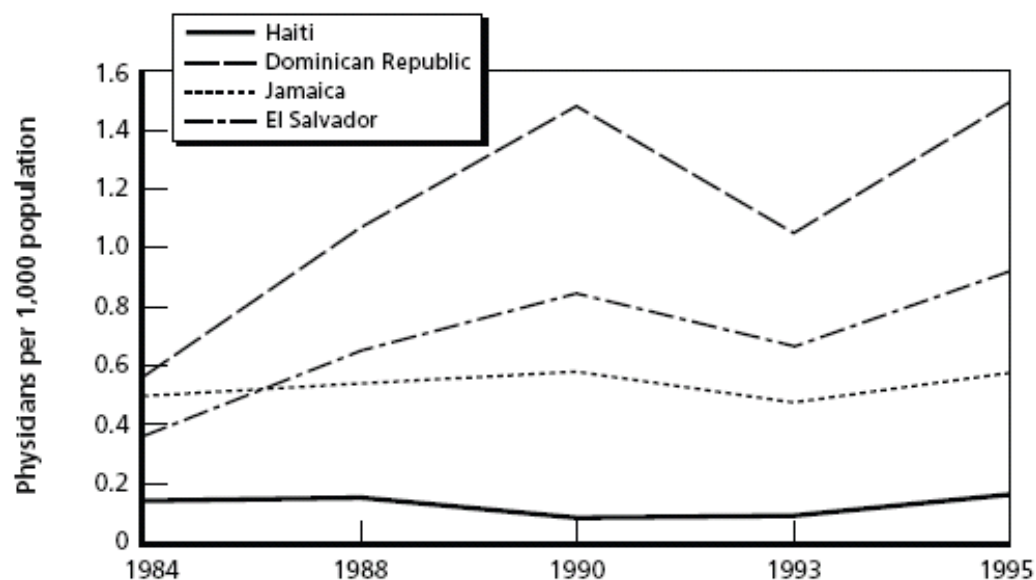

Source: Partners In Health.

Exhibit 3a *Mortality Rate — Haiti and Other Countries in Region*

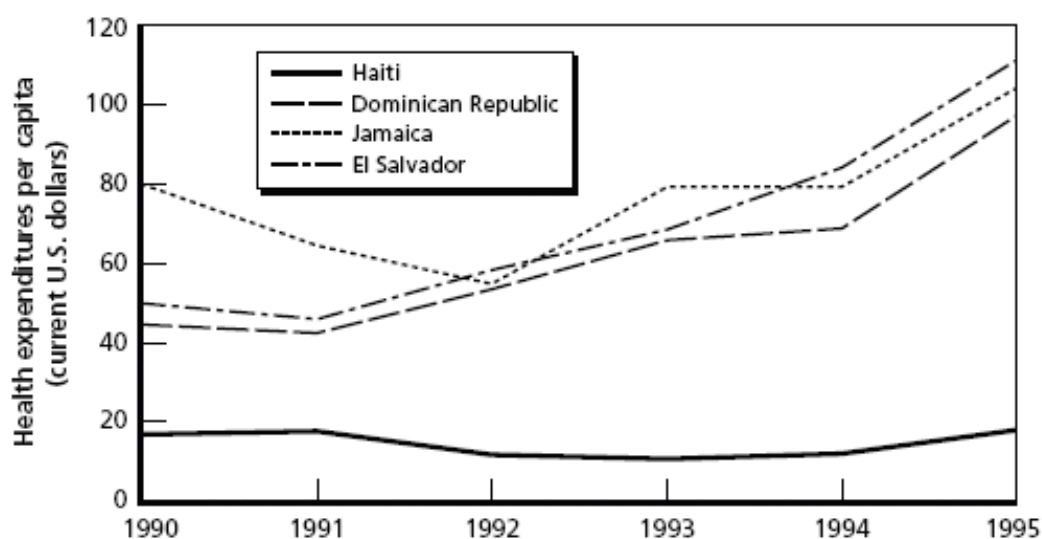
Source: RAND, *Securing Health: Lessons from Nation-Building Missions*; World Bank, *World Development Indicators* (2003).

Exhibit 3b *Immunization Rates for Measles — Haiti and Other Countries in Region*

Source: RAND, *Securing Health: Lessons from Nation-Building Missions*; World Bank, *World Development Indicators* (2003).

Exhibit 4a *Number of Physicians — Haiti and Other Countries in Region*

Source: RAND, *Securing Health: Lessons from Nation-Building Missions*; World Bank, *World Development Indicators* (2003).

Exhibit 4b *Health Expenditures Per Capita — Haiti and Other Countries in Region*

Source: RAND, *Securing Health: Lessons from Nation-Building Missions*; World Bank, *World Development Indicators* (2003).

Exhibit 5 *VCT Room at Sainte Thérèse Hospital*

Source: Erika Pabo, July 31, 2007.

Exhibit 6 *Structure and Function of Zanmi Lasante Community Health Workers (CHWs)*

Accompagnateurs: *Accompagnateurs* visited patients once or twice a day (depending on the treatment regimen) to provide directly observed therapy (DOT). They ensured that patients took all of their TB, HIV, or other necessary medications. In addition, *accompagnateurs* provided emotional support, counseled patients about their medications or their condition, closely monitored patients for complications or adverse reactions to medication, and helped patients obtain medical attention as necessary between their scheduled monthly visits with the ZL clinical team. ZL paid each *accompagnateur* a flat yearly salary of USD 743 to care for one to two patients located varying distances from the *accompagnateur's* home.⁴²

Ajan Sante (health agents): *Ajan Sante* provided community health education on a wide range of topics. They also tracked health care outcomes at the community level (such as childhood vaccination rates, birth rates, and death rates). In addition, the *Ajan Sante* could provide patient support, distribute condoms and oral contraceptive pills, and provide vaccinations. Of all of ZL's CHW positions, this role required the highest level of education.

Ajan Fanm (women's health agents): *Ajan Fanm* focused on women's health issues. Their role was to reach women unable to come into a ZL clinic for care. The *Ajan Fanm* traveled throughout their local areas, teaching about sexually transmitted infections, family planning, and other women's health issues. They distributed condoms and oral contraceptive pills but did not perform clinical interventions (such as giving Depo-Provera shots). In addition, the *Ajan Fanm* identified and referred pregnant women to the ZL clinics.

Matrons (traditional birth attendants): Traditionally, Haitian families paid *matrons* to care for pregnant women and perform home deliveries. The *matrons* only received payment if they delivered the baby in the home. If a *matron* recommended that a pregnant woman seek attention at the hospital and the woman gave birth there, the *matron* lost her salary. As a result, fewer pregnant women came to the hospital for prenatal care and fewer pregnant women were tested for HIV. Thus, fewer HIV-positive women received appropriate therapy to prevent mother-to-child transmission. ZL did not pay the *matrons* to refer women, but offered trainings and monthly review sessions for the *matrons* to learn how to identify high-risk or complicated pregnancies that required medical attention. In addition, ZL provided them with birthing kits containing soap, gloves, gauze, vitamin A, a scrub brush, a razor blade, a plastic drape, and strings to clamp the umbilical cord.

Source: Partners In Health.

Exhibit 7 *Factors ZL Used to Assess Social Needs in Rural Haiti*

- 1) **Family structure and environment:** marital status, number of children alive and deceased, presence of orphans, history of violence or abuse, history of infidelity, and history of exchange of sex for money, goods, drugs, gifts, food, etc.
- 2) **Housing situation:** condition of home, number of people living in house or per room, home ownership (rented or owned), type of roof (tin, banana leaf, thatch), type of floor (cement, dirt), availability of latrine, number of windows, availability of beds and other basic furniture.
- 3) **Overall nutritional status:** number of meals eaten per day or week, types of food/nutrients available, source of food (farmed, purchased at market, received from food program).
- 4) **Access to potable water:** type (open streams, pump, protected source) and distance to water source.
- 5) **Overall economic situation:** occupation, educational attainment, history of domestic servitude, history of migration for work, history of displacement, history of detention or imprisonment, land ownership, radio ownership.

Source: Partners In Health, *PIH Guide to the Community-Based Treatment of HIV in Resource-Poor Settings*, 100–04.

Exhibit 8 *Program on Social and Economic Rights (POSER) Initiatives*

Initiative	Activities
Housing	Home renovation/construction for HIV-positive patients and their families
Nutrition	Two daily meals for inpatients at ZL facilities
Vocational Assistance	Funds to support vocational training for HIV-positive patients and provision of basic tools
Alpha Club	Literacy and recreational programming for hospitalized HIV-positive patients
Orphans and Vulnerable Children	Direct financial support for children of HIV-positive patients and their families
Primary Education	School fees and other support for children of HIV-positive patients
Financial Needs	Provision of direct financial assistance to HIV-positive patients and their families
Potable Water	Community-wide and family-level interventions to improve access to clean water
Urgent Needs	Funding for patients' unexpected needs, including medical emergencies, funeral expenses, and lodging fees
Microfinance	Loans for HIV-positive patients to enable them to start or resume small commercial enterprises
Adult Literacy	"ABC" initiative in partnership with the Haitian government
Canteen Program	Provision of lunch at local primary schools
Agriculture	Farms and nurseries to address deforestation, improve crop yield, and provide food for patients and staff
Transportation	Stipends to minimize the travel burden of attending clinical appointments

Source: Partners In Health.

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