**GHESKIO Mission**

GHESKIO, based in Port-au-Prince, Haiti, was the first institution in the developing world dedicated to the fight against HIV/AIDS. GHESKIO is the acronym for the Haitian Group for the Study of Kaposi’s Sarcoma and Opportunistic Infections.

GHESKIO has been affiliated with Weill Cornell Medical College since its creation. Dr. Jean Pape, Professor of Medicine at Weill Cornell, is the founding Director of GHESKIO.

GHESKIO's three part mission is: 1) clinical service, 2) research, and 3) training in HIV/AIDS, tuberculosis, and related diseases. The mission was expanded to include humanitarian relief and community health care for people in Port au Prince after the devastating January 2010 earthquake.

Working in partnership with the Haitian government, GHESKIO provides AIDS and TB care, and community-based primary care services. Through the conduct of research, GHESKIO defines clinical treatment and prevention models for Haiti and the world. Through training, GHESKIO expands these models to the national level.

**History**

Founded in 1982 by a consortium of Haitian health professionals GHESKIO is committed to providing comprehensive clinical care and humanitarian support to Haiti’s most vulnerable populations, researching treatment and prevention models appropriate for Haiti and other resource poor settings, and training the next generation of health care workers.

GHESKIO works in partnership with the Haitian Ministry of Health. Despite political turmoil, economic conditions, and frequent natural disasters including the earthquake in 2010 and Hurricane Matthew in 2016, GHESKIO has provided continuous clinical care, never once shutting its doors or charging fees. GHESKIO is dedicated to building Haiti’s public health system and is a national clinical and laboratory training center. GHESKIO established the first Masters in Public Health program and Nurse Practitioner program in Haiti. Between 2012 and 2017, GHESKIO trained over 3,500 health professionals in Haiti.

**Clinical Service**

GHESKIO is the largest provider of HIV and TB treatment in the Caribbean. GHESKIO provides HIV testing, counseling, adult and pediatric antiretroviral therapy, TB diagnosis and treatment, cholera treatment, sexually transmitted disease treatment, and prenatal services to prevent mother-to-fetus HIV transmission. In 2016, GHESKIO provided HIV counseling and testing to over 40,000 people and diagnosed 3,947 patients with HIV. GHESKIO also diagnosed and treated 3,262 patients with TB including 98 MDR-TB cases.

GHESKIO also has a comprehensive community health program serving the City of God, an impoverished urban slum adjacent to GHESKIO, where over 100,000 people live on less than $1/day. GHESKIO provides residents from the City of God with clean water, sanitation, vaccinations, child growth monitoring, primary care, pediatrics, family planning, prenatal care and reproductive health services. GHESKIO has also trained Community Health Workers to survey the City of God for infectious diseases, vaccinate children, and refer patients to GHESKIO for specialized care.
Research

GHESKIO is a leader in conducting clinical and public health research and a model for international collaboration, with long-standing ties to Weill Cornell Medical College and other US and European academic institutions. GHESKIO has had uninterrupted support from the National Institutes of Health since 1983 and contributed over 150 peer-reviewed publications. The first comprehensive report of AIDS in a developing country was from GHESKIO (NEJM 1983). Other seminal publications include the determination that the enteric coccidia are the etiologic agents of chronic diarrhea in a majority of AIDS patients and that 1 week of trimethoprim–sulfamethoxazole is effective to treat isosporiasis and cyclosporiasis. (NEJM 1986, NEJM 1989), determination that isoniazid prevents TB and slows HIV disease progression (Lancet 1995), and evidence that early antiretroviral therapy of HIV infected adults with a CD4 count of 350 cells/mm3 decreases mortality by 75% (NEJM 2010). Current and proposed research is summarized below.

• **HIV/AIDS:** GHESKIO is conducting trials to optimize treatment of HIV including: a strategy for testing for HIV and initiating antiretroviral therapy (ART) on the same day; salvage ART for patients who have failed first-line ART in a resource-poor setting; and studies of the effect of early initiation of ART to prevent AIDS related chronic diseases.

• **Tuberculosis:** Haiti has the highest prevalence of TB in the Western Hemisphere with 366 cases per 100,000 population or 36,000 people with active TB. The crowded urban areas around Port-au-Prince are the most severely affected, accounting for half of all TB cases. Ongoing studies include a study of improved TB diagnostics for children; new treatment regimens for multi-drug-resistant tuberculosis (MDR-TB); and molecular epidemiology of the emergence of drug resistant TB in Haiti. GHESKIO is preparing for trials of a new recombinant TB vaccine and evaluation of new promising TB treatment drugs. Studies of TB are facilitated by a bio-safety level 3 (BSL-3) laboratory for M. tuberculosis and a new 33-bed MDR-TB hospital at GHESKIO.

• **Maternal and Child Health:** Pediatric research focuses on the “first 1000 days of life”, a period of rapid growth and development. For children in Haiti, particularly HIV-exposed children, it is also a period of high risk for morbidity, mortality, growth faltering and poor cognitive development. We are therefore studying the relationship between maternal HIV infection, breast milk composition, and child nutrition and development. We are studying optimal strategies to provide nutritional support to HIV-infected pregnant mothers. A study is also being conducted to identify the etiologies of community-acquired pneumonia in children under five years of age. Women’s health includes research on the optimal screening strategy to prevent cervical cancer and operational research to deliver the HPV vaccine to adolescents.
Training

One of GHESKIO’s highest priorities is to build the capacity of Haiti’s public health system by training the next generation of health care workers. GHESKIO provides both clinical training in support of the national scale-up of HIV/AIDS/TB services and research training supported by the NIH Fogarty International Center.

During the last five years, GHESKIO provided training to 3,831 health care workers. The courses in Haiti involve a broad cross-section of medical personnel, including physicians (727), social workers (201), laboratory technicians (515), nurses (1,564), and other health care workers (dentists, pharmacists, nurse’s aides, and community health workers) (824). Fogarty International Center support for Weill Cornell and GHESKIO has developed a cadre of ~80 young research investigators and staff who are now conducting clinical and operational research. Through the combined efforts of GHESKIO, international universities, and Quisqueya University in Port-au-Prince, a Masters of Public Health (MPH) (2007) and a Nurse Practitioner (NP) degree (2010) program have been established with 10 MPH degrees and 15 NP degrees conferred annually. These programs provide GHESKIO and Haiti with the next generation of leaders in the health field.

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Immediately after the 2010 earthquake, GHESKIO set up a temporary “tent city” to house the over 7,000 refugees—most from the City of God—that had encamped on its clinic grounds. GHESKIO provided the refugees with security, social support, and assistance rebuilding their homes, in addition to tents, sanitation, health care, clean water, and food. By 2012, all of the refugees had been resettled.

GHESKIO also provides economic development programs for adults. GHESKIO opened a vocational school to train young adults in construction and other trades and began a microcredit program to provide women with small loans to open their own businesses.

### Future Directions

GHESKIO provided a lifeline for the City of God, providing water, shelter, security, and primary care. The community trust and confidence gained will allow GHESKIO to expand these efforts over the next five years. The goal is to improve epidemiologic surveillance and health care for the people of the City of God and other neighboring slums of Port au Prince. These have been described by the United Nations as “some of the most dangerous places on earth” and are unfortunately increasingly typical of many large slums in developing countries. Our goal is to develop the health systems, innovative technology, and personnel to provide services for maternal-child health, infectious diseases, and chronic non-communicable diseases. An additional focus will be to improve the health and well-being of adolescents who are growing up in these slums through education, health promotion, and counseling services. (5 year budget, $2.5 million)

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**Humanitarian Support**

Recognizing that the foundation for good health requires more than medical care, GHESKIO provides comprehensive humanitarian support to the residents of the City of God community—an impoverished slum adjacent to GHESKIO where over 100,000 people live on less than $1/day.

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GHESKIO opened a primary school in 2010 for children ages 6-12 whose schools were destroyed in the earthquake. In addition to the required basic subjects, children learn about basic hygiene and cholera prevention and treatment. Children also have access to necessary clinical care, clean water, proper nutrition and the ability to spend safe, structured days on the GHESKIO campus. These opportunities are essential to the healthy and sustainable development of Haiti’s most vulnerable children.