

## CORRESPONDENCE

## COVID-19 NOTES

To rapidly communicate short reports of innovative responses to Covid-19 around the world, along with a range of current thinking on policy and strategy relevant to the pandemic, the Journal has initiated the Covid-19 Notes series.

## Facing the Monster in Haiti

Covid-19 has arrived at our clinic, GHESKIO, in Port-au-Prince, Haiti. A 45-year-old man presented with cough and shortness of breath. His oxygen saturation was 35%, and he died within 1 hour. Covid-19 cases have been reported in all 10 departments of Haiti; as of June 2, 2020, there were more than 2500 confirmed cases and the doubling time was 5 days ([www.mspp.gouv.ht/page-covid-19.php](http://www.mspp.gouv.ht/page-covid-19.php)). Future reported figures will be a fraction of actual rates, since testing capacity is now overwhelmed.

Haiti has one of the highest mortality rates from natural disasters in the world ([www.preventionweb.net/files/50589\\_credidastermortalityallfinalpdf.pdf](http://www.preventionweb.net/files/50589_credidastermortalityallfinalpdf.pdf)). The same factors that contribute to deaths from natural disasters make Haiti susceptible to a viral pandemic: poverty, food insecurity, lack of clean water and sanitation, scarce health care resources, low educational attainment, political division, and densely populated slums that are controlled by gangs and inac-

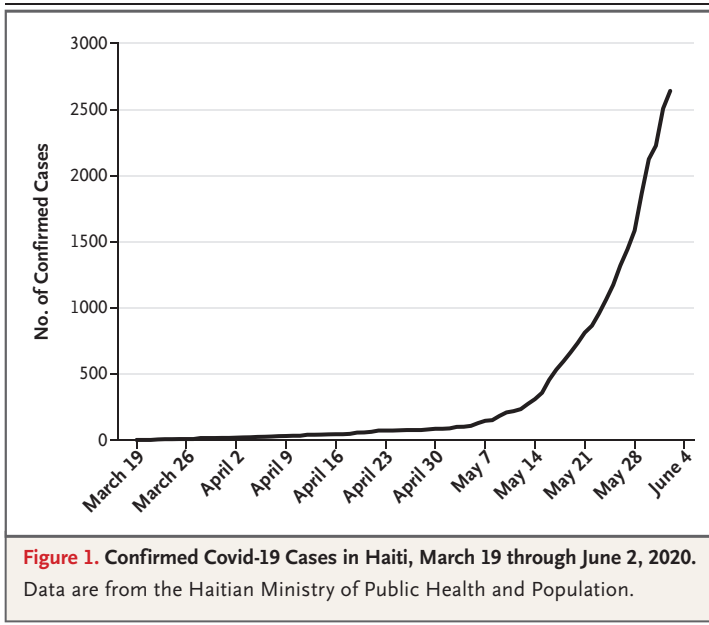
cessible to public officials. As Covid-19 surges in Latin America and Africa, lessons learned in Haiti will be applicable in other low-income countries with similar vulnerabilities (Table 1). Together with the Haitian Ministry of Public Health and Population (Ministère de la Santé Publique et de la Population [MSPP]), we have implemented practical solutions for addressing Covid-19.

The first case of Covid-19 in Haiti was reported on March 19. The government stopped commercial passenger flights, mandated a 14-day quarantine for visitors, banned public gatherings, closed schools and factories, and asked people to wear masks. A complete commercial shutdown like those implemented in China, Europe, and the United States is not feasible when half the population lives on less than \$2 per day and a day off from work equals a day off from food. Furthermore, Haiti shares the island of Hispaniola with the Dominican Republic, which has one of the worst Covid-19 outbreaks in the region. The border is porous, and since March, an estimated 24,000 Haitian migrant workers have fled the Dominican Republic and returned to Haiti (<https://reliefweb.int/report/haiti/haiti-covid-19-border-monitoring-weekly-sitrep-9-17-may-24-may-2020>). We are now experiencing the surge that early measures delayed but could not stop.

Stigmatization of people with Covid-19 impedes care. Rumors posted on social media (e.g., Covid-19 is a government ruse to seek international funding; Covid-19 is transmitted by contaminated testing swabs; and hospitals are using patients with Covid-19 for vaccine experiments) travel faster than truths reported in the traditional media. Hospitals treating patients with Covid-19 have been physically attacked. Health care workers have been threatened and MSPP mobile-testing teams stoned. GHESKIO is engaging community leaders to overcome this mistrust

**Table 1. Advice for Low-income Countries on Managing Covid-19.**

You are on your own. Pool resources and expertise from public and private institutions.
Work with your ministry of health so that successful interventions can be shared and scaled up.
Prevention messages must consider socioeconomic context.
Grassroots community engagement is essential to gain public trust and fight stigma.
Screening, testing, and care guidelines must be developed early and adapted rapidly as the pandemic evolves.
Guidelines and training videos can be put online and rapidly distributed on social media.
Suspect tuberculosis and Covid-19 coinfection in patients with chronic cough and sudden deterioration.



and stigma. We hired 1000 community health agents and are providing education on Covid-19, and our clinics have now seen hundreds of patients seeking Covid-19 testing and care. Grass-roots community engagement is essential to gain public trust and combat stigma, and we are scaling up this strategy nationwide.

Unlike prior humanitarian crises, when resources and international technical experts were rushed into Haiti, during this one we're on our own. For example, Haiti has 41 centers that could perform Covid-19 testing nationwide using the Cepheid platform, but the U.S. manufacturer is not distributing the tests to Haiti. Consequently, only the Haitian National Laboratory and GHESKIO can perform polymerase-chain-reaction testing, using other platforms. These laboratories are working in unison, sharing resources and technical staff, and Haitian businesses and the Haitian diaspora have provided support for this national effort.

Screening and testing algorithms must rapidly adapt to emerging public health needs. We started screening early to detect the anticipated surge. Initially, Haiti tested anyone with symptoms suggestive of Covid-19; 20 tests were run per

week, and less than 10% of results were positive. In mid-May, Haiti saw a dramatic upswing in new cases, with 1000 people tested in a week, 70% of whom had positive results (Figure 1). We are now targeting testing to patients with coexisting conditions or atypical presentations, pregnant women, and health care workers. For other patients, we are employing an MSPP clinical case definition that is based on symptoms and radiology results.

GHESKIO has two Covid-19 treatment centers in Port-au-Prince. Of 520 GHESKIO patients with confirmed Covid-19, 79 (15.2%) have required hospitalization, 6 (1.2%) have died, and 435 (83.7%) are being monitored at home by cell phone. Inpatient care is focused on oxygen therapy, fluid management, and anticoagulation. Hypertension and diabetes medications are available, since patients with these coexisting conditions have the highest risk of hospitalization. Patients with chronic cough and acute deterioration are tested for both tuberculosis and Covid-19. We have diagnosed three patients with coinfection. We have trained approximately 200 clinicians at public and private hospitals in Covid-19 care and have shared video tutorials online.

Haiti is susceptible to natural disasters and epidemics. But we are also resilient, creative, and relentless when faced with overwhelming challenges. We have overcome worse, and we will overcome Covid-19. We hope that our suggestions help our colleagues in other low-income countries.

Vanessa Rouzier, M.D.

Les Centres GHESKIO, Port-au-Prince, Haiti  
Center for Global Health, Weill Cornell Medicine, New York

Bernard Liautaud, M.D.

Marie Marcelle Deschamps, M.D.

Les Centres GHESKIO, Port-au-Prince, Haiti

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