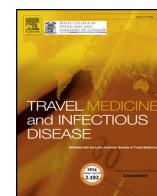




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The vulnerability of low-and middle-income countries facing the COVID-19 pandemic: The case of Haiti



Dear editor

On March 19, 2020, Haiti declared its two first cases of COVID-19, adding onto the long list of countries facing this new coronavirus [1]. By announcing this news, the Haitian government also declared a state of public health emergency and indicated new prevention measures to be implemented as of March 22, 2020. These measures included the closing of schools and universities, the shutdown of manufacturing industries, the implementation of a curfew from 8PM to 5AM seven days a week, the prohibition of public gatherings containing more than ten people, the weekly rotation of 50% of staff in non-essential public services, and the closing of all land, aerial, and sea ports for the transport of human beings [1]. On April 20, four weeks after this declaration, although there is a considerable degree of mistrust in the numbers reported by the health authorities, Haiti reported 57 cases of COVID-19, including 10 in the last day [2].

1. Precarity as a major factor in the spread of the disease

However, these measures seem unrealistic with the poor socioeconomic and health conditions in Haiti. In fact, the Haitian population is characterized by a chronic poverty level that reaches nearly 70% of households, which hinders access to health services and education [3]. This situation leads to the overpopulation of certain areas (e.g., Port-au-Prince, the capital, has a population density of 34 260 inhabitants/km²), the rationing of clean water in cities, the inexistence of infrastructures providing clean water in rural areas, and households containing more than three people by room. With such a high level of poverty, populations live day by day to meet basic needs: eating and drinking. Furthermore, the State does not have the means to bring aid to the population during crises. Moreover, studies lead during the cholera epidemic, which caused more than 11 000 fatalities within two years in Haiti, have shown that extreme poverty and low levels of education among lower class populations lead to the disrespect of public health instructions. This situation applies to numerous low- and middle-income countries where non-governmental organizations are raising alarm concerning COVID-19. As evidenced by the situation in India, Mayotte, Kenya, South Africa, Ivory Coast, Dominican Republic, Nigeria, Ecuador, Bangladesh, Democratic Republic of the Congo and others.

2. Insufficient preparation

Given the precarious situation, like other low-and middle-income countries, Haiti is simply not prepared to deal with the COVID-19 pandemic. Although the PanAmerican Health Organization (PAHO) and the Centers for Disease Control and Prevention (CDC) have provided the country with training to screen COVID-19, only 1000 test units were

given to the National Laboratory of the Ministry of Public Health and Population, the only institution in the country capable of screening for a population of 11 million. Prior to the epidemic, the country was ranked 166th country out of 178 as it barely had 0.7 hospital beds per 1000 inhabitants [4]. In addition, the country has fewer than 30 Intensive Care Unit (ICU) beds, faces electricity rationing that can complicate the treatment of patients under artificial ventilation, and a chronic lack of oxygen concentrator units [5]. Faced with the inability to care for the ill, the lack of protective equipment (e.g., masks and gowns) and safety measures, and the inability of response teams to control and prevent infections, many health care professionals (e.g., doctors and nurses) have already taken steps to avoid going to hospitals by fear of being infected themselves, some of whom have gone abroad. Moreover, a poor start to the coordination of the pandemic response, and the lack of confidence in public health authorities led to the emergence of conspiracy theories among the population and to the ignorance of public health instructions.

3. Preparing for the worst, but committing to being ready the next time

The current situation in Haiti is challenging but is similar to many other low-and middle-income countries. Faced with a lack of resources, if actions aren't taken, the hospitals treating people infected with COVID-19 could quickly become hotbeds of infection for other fragile patients, their parents, and health care professionals. At a time when all countries are concerned about the COVID-19 pandemic, Haiti will not be able to benefit from the international solidarity that could have helped it to cope, as it did after the earthquake of January 12, 2010. In fact, sanitary and protective equipment, and ICU beds are even lacking in the most developed areas of the world such as Europe and New York. However, despite these shortages, countries are not equal in the face of the pandemic and this requires a strengthening of policies for global health. Steps need to be taken by World Health Organization and regional institutions such as PAHO to assist and force LMICs to strengthen their health systems and be equipped when the next epidemics strike. In the meantime, international mobilization is needed to limit the consequences of the pandemic in LMICs.

Funding

None.

Declaration of competing interest

No conflict of interest for the author.

<https://doi.org/10.1016/j.tmaid.2020.101684>

Received 28 March 2020; Received in revised form 2 April 2020; Accepted 17 April 2020

Available online 22 April 2020

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