

COVID-19 in Yemen: preparedness measures in a fragile state

WHO declared COVID-19 to be a pandemic on March 11, 2020.¹ The pandemic eventually reached Yemen, with the first laboratory confirmed case announced on April 10.²

The cholera epidemic in Yemen reached 2 million suspected cases in January, 2020.³ Concomitant outbreaks of other communicable disease, such as diphtheria and dengue, have exhausted the remaining resources of the country's fragile health system. More than 50% of people in Yemen do not have access to safe water and over 2 million children and pregnant women have acute malnutrition.⁴ Given the humanitarian situation and the conflict within the country that has been ongoing since 2015, we fear the effect of the COVID-19 pandemic in Yemen could be disastrous. The situation warrants immediate attention. Here, we summarise the current preparedness and response to COVID-19 in Yemen in terms of detection, prevention, and response in light of the recent government decisions to establish a national COVID-19 taskforce and response plan.

Yemen has an effective facility-based, real-time disease surveillance system called the electronic Diseases Early Warning System. The surveillance system covers around 37% of the health facilities in Yemen. Evidence from previous outbreaks of cholera and diphtheria shows the capability of the national health system to establish and maintain an event-based surveillance if needed.⁵ However, some flaws still exist, such as the shortage of technical staff required for field investigation or active surveillance. Moreover, no national workforce strategy exists to employ epidemiologists. The national laboratory system is rudimentary and relies on a few central laboratories—ie, the National Central Public Health Laboratory in Sana'a and its four

branches in Aden, Taiz, Hadramout, and Hodeidah governorates. The weaknesses in the laboratory system are not limited to the number of national laboratories, but also are due to the shortage of PCR machines and reagents to detect cases of COVID-19.

The fragile situation and fragmented authorities in Yemen are major challenges that hinder the implementation of the International Health Regulations and related legislation and policies during disease outbreaks. Since the spread of COVID-19, Yemen's Government has not been able to prepare enough locations for isolation at points of entry into the country nor has it been able to fulfil International Health Regulations standards in response to pandemics. Most of Yemen's points of entry have little or no technical capacity or established system to deal effectively with travellers with suspected infection. Furthermore, Yemen has long coastal borders, which regularly receive thousands of migrants and refugees from the Horn of Africa. How the country can apply public health measures in response to migrants' movement across its permeable borders and seaports is as yet unclear.

As of April 10, a national governmental preparedness and response plan to COVID-19 is yet to be approved. Nationally, the identification of public health risks and prioritisation of resources are still uncertain. Measures, such as introducing quarantine, closing airports, and restricting public gathering have started to be implemented; a few hospitals and medical wards have been designated to receive cases. Fear is increasing among health-care staff due to the lack of personal protective equipment and the massive shortage of equipment and medicines.

Although the risk communication system in Yemen is currently unsatisfactory, an effective coordination mechanism exists between humanitarian partners through the national health cluster (a WHO-led platform for coordinating humanitarian

health responses). On March 16, 2020, the government established a high intersectoral committee to control the COVID-19 outbreak with all the relevant ministries, including security authorities. Still, public communication and engagement with communities remains suboptimal and dependent on initiatives of individuals or humanitarian organisations.

Yemen has structural vulnerabilities that have developed over a protracted period of conflict and poor governance, and its health system has suffered the most. To prevent a total collapse of Yemen's fragile health system, the government and the international community should act now more decisively.

We declare no competing interests.

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