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Senegal faces the Coronavirus disease -19 challenge

Letter to the Editor

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Five continents are concerned with the Coronavirus disease-19 pandemic [1]. The priority, in each affected country, is to detect the virus through real-time polymerase chain reaction (PCR) tests. In Senegal, PCR analyses are performed by the Pasteur Institute in Dakar and to date of March 15 Aprilth, 314 cases of Coronavirus disease-19 have been confirmed [2]. Does the country have the capacity to stop the spread of the disease? All positive cases so far have been identified through “passive detection”, as patients presented to healthcare facilities with symptoms [2]. The first four confirmed cases (date of March 12th) were imported cases who had travelled from France and Italy by plane, highlighting the need for control and prevention measures at points of entry into Senegal. Security at Blaise-Diagne International Airport has

been enhanced with the use of thermal imaging cameras to identify passengers with abnormally high body temperatures ($\geq 38^{\circ}\text{C}$), as the first sign of infection is fever. To detect cases as early as possible through health surveillance, we believe that this device should be implemented at all airports, ports and bus stations at the borders, and reinforced by a simple and quick questionnaire to passengers without fever (other Coronavirus disease -19 symptoms include mild cough, nasal congestion, runny nose, sore throat or diarrhea) [3]. The fifth Coronavirus disease-19 case is a Senegalese immigrant from Italy who, after leaving the airport, went to a town in the country (Touba City), and infected 20 of his family members. The other 50 are currently in quarantine. This is why the Magal of Kazu Rayab was canceled by the public authorities in agreement with the religious authorities.

To respond to the outbreak/take in charge severe cases, Fann Hospital (Dakar) has a capacity of 36 beds which can correctly handle Coronavirus disease-19 cases. However, if the number of cases continues to rise, resources will be needed for other structures to also accommodate cases. The Senegalese health system needs to be strengthened: different and numerous services have to be mobilized and treatment should be developed on an outpatient basis (outside the hospital, to avoid people rushing into the hospital and contaminating each other). Respiratory specialists - including those who work in the private sector - must be mobilized to care for diagnosing patients. Peripheral health services - health posts, health huts, health centers - must also be included. In the community, the head nurses of health posts, community health workers and the "badianou gokh" (neighborhood godmothers in Wolof), must communicate prevention and care messages. Since the 2014, Ebola epidemic that took health systems and health services by surprise, a whole system has been put in place to anticipate epidemics by detecting them early through health surveillance; then to respond to them quickly and in a coordinated manner. Senegal's health systems must face up to new

challenges. To treat people effectively, they must be first diagnosed early and isolated.

Detecting carriers early is vital because Coronavirus disease-19 is highly contagious.

Africa has few cases of Coronavirus disease-19 so far[4]. Can this be due to a faulty detection of cases? the climate ? Luck? The very low number of cases of Coronavirus disease-19 detected in African countries, with fragile health systems, worries experts and the community as some countries and regions do not have the necessary resources to implement diagnostic procedures.

Simple prevention measures can help slow the spread of the epidemic : (i) wash hands regularly with a hydroalcoholic solution or with water and soap; (ii) stay more than a meter away from anyone who is coughing or sneezing; (iii) cover your mouth and nose with your bent elbow or with a handkerchief when coughing or sneezing and immediately dispels the handkerchief into a closed bin; (iv) avoid gatherings as they increase the risk of transmission of respiratory viruses indeed, this has been demonstrated in Senegal during the Grand Magal of Touba [4].

For the treatment of Coronavirus disease-19, the use of old drugs like hydroxychloroquine or chloroquine is a very interesting strategy because because knowledge on safety profile, side effects, posology and drug interactions are well known [5]. Senegal's health systems must face up to new challenges. To treat people effectively, they must be first diagnosed early and isolated. Detecting carriers early is vital because Coronavirus disease-19 is highly contagious.

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