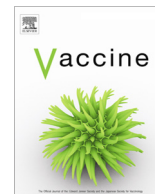




Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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## Letter to the Editor

### COVID-19 diagnosis in a Senegalese company: A model for COVID-19 vaccination?



The whole world has been suffering from the SARS-CoV-2 pandemic since early 2020. Although many African countries initially seemed to be at less risk than Western ones, it rapidly became clear that this was due to under-detection of cases. The gap between high and middle-and-low income countries (MLIC) tends to become wider, with great differences in the implementation of diagnostic tests, patient care and economic support measures.

The WHO and its partners launched the Access to COVID-19 Tools (ACT)-Accelerator in April 2020, but the goal to develop efficient tools to combat COVID-19 in MLIC was only partially achieved.

Our first local response to the outbreak was to establish a free, rapid medical screening consultation in our company located in the town of Saint-Louis (northern Senegal) because the nearest existing laboratory for PCR detection was over 100 km away and the result time was at least a week. Simple, rapid antigen detection assays have already proved their worth in epidemic and endemic situations [1,2] thus we have been using the Abbott Panbio™ COVID-19 Ag Rapid Test to detect SARS-CoV-2 nucleocapsid protein in naso-pharyngeal samples. This assay is rapid, giving results in 20 min, and has been approved by the WHO.

The prevalence at the end of December 2020 among symptomatic patients or their contacts was unexpectedly high (21.9% SARS-CoV-2 positive; sex ratio 1.8,  $p = ns$ , mean age: 36.4,  $p = ns$ ). One third of the symptomatic people were suffering from comorbidities. During the following months the prevalence evolved in the same way as the epidemic waves described. In August the prevalence in our centre reached more than 43%. Overall, we have seen a 44% reduction in the number of days lost to Covid; before this experience, in ignorance of a diagnosis, quarantine was carried out in excess.

In April 2021, we extended our approach for the rapid diagnosis to the vaccination against COVID-19 for employees and their families. Since then, nearly 500 people were vaccinated with either Sinopharm's or Astrazeneca's vaccine. In the region of Saint Louis, vaccination is accepted and demanded, and unfortunately the demand is so great that it cannot be met.

We think that our approach is a public health milestone in the fight against COVID-19; the screening for SARS-CoV-2 infection providing additional, decentralized, real-time monitoring of the infection that can be used to develop a more detailed picture of the dynamics of the epidemic in the Country; the vaccination allowing for a rapid and close coverage of the local population. Overall these approaches have helped demystify the disease. People now have confidence in this local care system and are no longer afraid to be tested, preferring to "be sure once and for all".

Some Senegalese companies have implemented these tools and we believe that these actions should be encouraged by national authorities and transnational institutions such as the WHO in order to meet the demand for diagnostic tests and vaccine doses.

The optimal control of COVID-19, or any other infection, within a commercial enterprise is essential for efficient workforce management, maintained productive, and the wellbeing of employees and their families. On a larger scale, it also helps protect a country's economy.

#### Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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