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The importance of designing and implementing participatory surveillance system: An approach as early detection and prevention of novel coronavirus (2019-nCov)



To the editor,

The atypical pneumonia case, caused by a novel coronavirus (2019-nCoV), was reported by the World Health Organization,¹ which has been spreading at high rates since the end of December 2019.^{2,3} The 2019-nCoV case was first detected and confirmed in Wuhan, China, before being identified in other Chinese cities. It has also been reported in most countries of the world.^{4,5} On January 30, 2020, the World Health Organization declared the outbreak as a Public Health Emergency of International Concern. The 2019-nCoV-infected pneumonia is characterized by flu-like symptoms such as fever, cough, severe acute respiratory distress syndrome, and in some cases death.⁵ Human-to-human transmission has been confirmed for the virus,^{6,7} which is related to Acute Respiratory Syndrome (SARS) and Middle Eastern Respiratory Syndrome (MERS). Like SARS-CoV and MERS-CoV, the 2019-nCoV is a serious threat to human health.²

The aforementioned problems have caused the world health systems (especially health systems in the affected countries) to make changes in order to improve and enhance their health systems. At the same time, development and implementation of surveillance systems are essential to identify and respond quickly to such threats.⁸ Therefore, the affected countries need to strengthen the traditional monitoring system, simultaneously developing and implementing a well-known new surveillance system as a Participatory Surveillance System (PSS) to prevent, control, and reduction 2019-nCoV-related complications and burdens. Traditional passive surveillance systems rely on the confirmation laboratory and may not identify emergent disease until there is a high incidence rate in a community or a severe disease presentation.⁹ Participatory Surveillance System (PSS) is an approach to diagnosing illnesses that allow the public to report signals directly, providing a quick visualization of data collected to the user and public health organizations.^{8,9}

The main purpose of PSS is early detection of community-based epidemics. In the new system, when the number of cases exceeds the defined threshold, the computer system automatically warns the labs and response teams to launch infectious diseases to counter the outbreak. In order to identify and respond quickly to emerging public health threats such as 2019-nCoV, designing and implementing an innovative electronic surveillance system called the PSS for global health security is essential. The current letter could provide a new perspective for public health officials in affected countries.

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COVID-19 drive through testing: An effective strategy for conserving personal protective equipment



The coronavirus disease 2019 (COVID-19) pandemic has created a surge of patients presenting to emergency departments (ED).¹ This heightened patient volume has increased strain on finite resources including providers and personal protective equipment (PPE) needed to help keep providers safe.² There have been several recommendations proposed for PPE conservation such as reducing nonessential services and minimizing patient contact.³ We demonstrate the use of drive through COVID-19 testing as an effective strategy to minimize patient contact and conserve PPE.

A drive through unit for COVID-19 testing was established on the Mayo Clinic Florida campus for established patients. The drive through operates 6 hours per day, 7 days a week, and consists of 3