

Immediate Health Surveillance Response to COVID-19 Epidemic

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On December 31st 2019 the World Health Organization (WHO) was notified of the occurrence of a pneumonia outbreak in the city of Wuhan, Hubei Province, People's Republic of China. The etiological agent was rapidly identified as a novel coronavirus: SARS-COV-2. The outbreak began in a seafood and live animals market and, as at the date of this publication, the animal reservoir is unknown.¹

The first Emergency Committee meeting about the novel coronavirus outbreak in China, convened by WHO in accordance with the International Health Regulations (IHR) (2005), was held on January 23rd 2020. Consensus was not reached by that meeting as to whether the event was a Public Health Emergency of International Concern (PHEIC).² At its second meeting, held on January 30th, the number of cases and countries reporting confirmed cases were seen to have increased and this led to the outbreak being declared a PHEIC.³

In February 2020, in accordance with WHO best practices for naming new infectious human diseases, the disease caused by the novel coronavirus was named as COVID-19, in reference to the type of virus and the year the epidemic started: Coronavirus disease – 2019.⁴ By the end of February, some 80,000 cases had been confirmed, as well as 2,838 COVID-19 deaths in China, plus approximately 6,000 confirmed cases and 86 deaths in a further 53 countries.

In Brazil, the first COVID-19 case was confirmed on February 26th 2020. By March 3rd, 488 suspected cases had been reported, 2 had been confirmed and 240 had been ruled out in Brazil, with no evidence of local transmission. The first two confirmed cases occurred in males, resident in the city of São Paulo, SP, who had returned from a journey in Italy.

The response of the Brazilian Health Ministry's Health Surveillance Secretariat (SVS/MS) to the COVID-19 epidemic was immediate. On January 3rd, following detection of rumors, WHO International Health Regulations National Focal Points (WHO/IHR-NFP) were brought into action. Following risk assessment, the event was included by the Event Monitoring Committee on January 10th. On January 22nd, the Brazilian Ministry of Health Emergency Operations Center (EOC) was brought into action. EOC is coordinated by SVS/MS, with the purpose of harmonizing, planning and organizing activities with the stakeholders involved as well as international monitoring. On January 27th, the contingency plan was put into operation and on February 3rd the COVID-19 epidemic was declared a Public Health Emergency of National Concern (PHENC).⁵

Still in January, SVS/MS published three Epidemiological Bulletins on the subject, focusing on actions to prevent and tackle the epidemic. The Bulletins also provide updated suspected case definitions, according to clinical and epidemiological criteria. The IVIS Platform provides daily information on the current number of suspect, ruled out and confirmed cases on its website (<http://plataforma.saude.gov.br/novocoronavirus/>). Furthermore, interviews and statements have been frequently made to the press and to society, highlighting SVS/MS' care in providing transparent information and rapid communication about the event.

The Federal Government also reacted promptly. On January 30th it published Decree No. 10211, reactivating the Interministerial Executive Group on Public Health Emergencies of National and International Concern (IEG-PHENIC).⁶ The Group's attributions include articulating measures for preparing for and addressing national and international Public Health emergencies. The IEG-PHENIC is coordinated by the Ministry of Health and is comprised of the following bodies and entities: Chief of Staff's Office; Ministry of Justice and Public Security; Ministry of Defense; Ministry of Agriculture, Livestock and Food Supply; Ministry of Development; Institutional Security Bureau; and National Health Surveillance Agency (ANVISA). Also on January 30th, the Ministry of Health announced a notice to bidding in order to allocate an additional 1000 beds in reference hospitals indicated by the country's state-level governments to cater for possible COVID-19 cases.

It also announced the publication of a notice to bidding for the purchase of personal protective equipment (PPE) for health professionals – such as surgical masks, face protectors, caps, N95 masks and gloves –, in addition to other supplies. Protecting the health of professionals is fundamental, given that coronavirus is known for its tendency to propagate in health services.⁷

Similarly to outbreaks caused by two other pathogenic human respiratory coronavirus – severe acute respiratory syndrome coronavirus (SARS-CoV) and Middle East Respiratory Syndrome coronavirus (MERS-CoV) –, SARS-COV-2 is transmitted between humans and can cause severe respiratory disease; however, it differs in its ability to transmit itself from asymptomatic cases. This fact, together with an unknown proportion of affected people who do not develop serious manifestations of the disease, are factors that affect the ability to contain virus propagation.⁷

A modeling study has pointed to the possibility, in the absence of large-scale Public Health interventions, of the occurrence of independent and self-sustaining COVID-19 outbreaks in the world's leading cities, given the substantial exportation of pre-symptomatic cases.⁸ In the scenario described, response actions such as these, currently being developed by Brazilian Health Surveillance, are fundamental for containing virus propagation and the disease itself.

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