

Outbreak of 2019 Novel Coronavirus (2019-nCoV) in Wuhan, China

Situation Report – No. 1. 22 January 2020

Summary

An outbreak of novel coronavirus causing severe acute respiratory illness has been reported in Wuhan, China since December 21, 2019. **There is still little known about it including its origin, but human to human transmission has been confirmed among cases.** CARPHA is working closely with international health partners to respond to this health threat and provide timely advice and assistance to Caribbean Member States.

1. What we currently know

- **Type of virus** - The virus belongs in the same family of coronaviruses as Severe Acute Respiratory Syndrome (SARS), which killed nearly 800 people globally during a 2002/03 outbreak that also started in China ([Reuters](#), [CDC](#)).
- **Clinical picture** – Cases have presented with viral pneumonia of unknown etiology (VPUE), now known as novel coronavirus-infected pneumonia (NCIP). Initial investigation of cases in Wuhan revealed most patients had severe and nonproductive cough following illness onset, some had dyspnea, and almost all had normal or decreased leukocyte counts and radiographic evidence of pneumonia (The 2019-nCoV Outbreak Joint Field Epidemiology Investigation Team, 2020). See Surveillance case definitions under Item 3 below.
- **Known cases** - As of Jan. 22, there were 440 confirmed cases of patients with pneumonia caused by the new strain of coronavirus. Many of the patients are Wuhan residents or people who recently went to the city (Wood, 2020, [PHE](#)). Thailand and Japan have also confirmed at least one case among travelers who visited Wuhan. On 21 January, the US CDC announced the first case in the USA.
- **Transmission and source** - The outbreak in Wuhan, China has been linked to Wuhan South China Seafood City (also called the South China Seafood Wholesales Market and the Hua Nan Seafood Market). In addition to seafood, the market sells chickens, bats, cats, marmots, and other wild animals; suggesting a possible zoonotic origin to the outbreak (CDC). The China CDC has concluded that transmission within communities is believed to be taking place in Wuhan, since 1) recently-reported, confirmed cases have had **no** history of exposure to the Huanan Seafood Wholesale Market; 2) human-to-human transmission has occurred; and 3) HCWs have been shown to have been infected by the novel coronavirus (The 2019-nCoV Outbreak Joint Field Epidemiology Investigation Team, 2020). There is still much more to learn about how the 2019-nCoV virus spreads, severity of associated illness, and other features of the virus.

2. Global actions to date

- The World Health Organization (WHO) sent directives to hospitals around the world on infection, prevention and control. **However, WHO has advised against travel or trade restrictions at this time based on available information.** <https://www.who.int/health-topics/coronavirus>
- China - Officials are conducting temperature screenings for all travelers leaving Wuhan airport and railway stations.
- Globally - Airport authorities in the United States as well as most Asian nations, including Japan, Thailand, Singapore and South Korea, have stepped up temperature screening of passengers from Wuhan.
- USA – The US CDC is working with the Department of Homeland Security to funnel all travelers from Wuhan, China to the five airports, to facilitate entry health screening ([CDC](#))

<https://www.cdc.gov/coronavirus/2019-nCoV/summary.html#cdc-response>). On arrival to the United States, travelers from Wuhan may undergo health screening, including having their temperature taken and filling out a symptom questionnaire. Travelers with symptoms (fever, cough, or difficulty breathing) will have an additional health assessment.

- US Centers for Disease Control (CDC) - CDC has established an Incident Management System to coordinate a domestic and international public health response. On January 21, 2020, CDC updated the level 1 travel health notice (“practice usual precautions”) for Wuhan City, Hubei Province, China to Level 2: Practice Enhanced Precautions advising travelers that preliminary information suggests that older adults with underlying health conditions may be at increased risk for severe disease. ([CDC](#))
- CDC has said that at this time, based on current information, the immediate health risk from 2019-nCoV to the general American public is deemed to be low. However, CDC is taking proactive preparedness precautions ([CDC](#)).

3. Surveillance

WHO has released an interim guidance (<https://bit.ly/2uf6ljw>) to provide orientation regarding which people should be investigated and tested for 2019-nCoV. With respect to this interim guidance, it is important to avoid overburdening respiratory disease surveillance systems and targeting laboratory testing.

These case definitions for surveillance include three groups of people:

- 1) Patients with severe acute respiratory infection (SARI) with no other etiology that fully explains the clinical presentation AND
 - a history of travel to or a person who lived in Wuhan, Hubei Province China in the 14 days prior to symptom onset or,
 - an occupation as health care worker in an environment caring for SARI patients with atypical clinical presentations or unknown etiology.
- 2) A SARI patient develops an unusual or unexpected clinical course, especially sudden deterioration despite appropriate treatment even if another etiology has been identified that fully explains the clinical presentation.
- 3) A patient with acute respiratory illness of any degree of severity who, within 14 days before onset of illness, had a close physical contact with a confirmed case of 2019nCoV infection, exposure to a healthcare facility in a country where hospital associated 2019-nCoV infections have been reported, or visited/worked in a live animal market in Wuhan, China.

4. Laboratory update

- WHO has posted two protocols for the detection of the nCoV (Laboratory testing for 2019 novel coronavirus (2019-nCoV) in suspected human cases Interim guidance, 17 January 2020) ([https://www.who.int/publications-detail/laboratory-testing-for-2019-novel-coronavirus-\(2019-ncov\)-in-suspected-human-cases](https://www.who.int/publications-detail/laboratory-testing-for-2019-novel-coronavirus-(2019-ncov)-in-suspected-human-cases)). Both protocols are in the process of validation. These guidelines contain all the information about specimen collection and shipment, biosafety and biosecurity. Member states are recommended to follow the guidelines and ask the CARPHA Medical Microbiology Laboratory (CMML) for advice.
- Other international public health agencies, like CDC, China CDC, European CDC are working on the design and eventual distribution of diagnostic kits to other countries. In any case, it is expected that a consensus test will potentially be available at least some weeks from now.
- CARPHA Medical Microbiology Laboratory (CMML) in Trinidad is working with PAHO on the development of local laboratory capacity. This is not an immediate process and is likely to take a few weeks, since it requires special

reagents and an internal validation procedure. CMML will follow the international recommendation of sending well screened and characterized samples to one of the WHO Collaborative Centers in the region (either CDC or PHAC).

5. Recommendations for Caribbean Member States

1. In keeping with WHO and PAHO recommendations, CARPHA does not recommend *at this time* to conduct entrance screening (temperature screening) at ports of entry. Passengers would already have been screened when exiting the Wuhan area and upon arrival in the US.
2. Member States are recommended to capture information on travel history using the Passenger Arrival Card or surveys, for all new arrivals. Arrivals that have recently traveled to China, especially to the Wuhan area, should be questioned for symptoms and advised to be vigilant for onset of those symptoms and to seek immediate medical attention at a public health facility. Passengers should be advised to seek medical care as soon as symptoms arise (See Item 3. Surveillance).
3. The CMML is working with international partners to procure the appropriate primers to conduct molecular diagnostic tests. An update will be provided as to when countries can initiate sample submission.

6. Communications

CARPHA will continue to monitor the situation and provide regular updates via email, on their website and social media. Teleconferences will be scheduled as necessary.

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