

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

Situation Report – No. 3. January 27, 2020

Summary

An outbreak of novel Coronavirus causing severe acute respiratory illness has been reported in Wuhan, China since December 21, 2019. The virus has not been previously identified and so, since it is new, there is still little known about it including its origin. There is recent evidence of human to human transmission among cases both in and outside of Wuhan City, China. The objectives of the public health response are to interrupt the transmission of the virus from one person to another in China, to prevent exportation of cases from China to other countries and territories, and to prevent further transmission from an exported case if they were to happen in other countries. CARPHA is working closely with international health partners to respond to this public health threat and provide timely advice and assistance to Member States and other regional partners and stakeholders.

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 ([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 January 26, there were 2794 confirmed cases of patients with pneumonia caused by the new strain of coronavirus. Outside of China, at least eleven (11) more countries have confirmed at least one case among travelers who visited Wuhan. Reports on January 25 indicated there is now one secondary case in a family member of a case in Vietnam. On 21 January, the US CDC announced the first case in the USA. Cases have now been reported in Canada, France, and Australia. See Table 1 below for an update prepared from various sources.
- **Transmission and source** - The outbreak in Wuhan, China was initially 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). However, the WHO has confirmed that based on reports, person-to-person transmission is taking place within communities and that people without symptoms appear to be transmitting the illness. The majority of new cases since the 21 January had **no** history of exposure to the Huanan Seafood Wholesale Market; and health care workers (HCWs) caring for ill patients have been confirmed with infection by the novel coronavirus (The 2019-nCoV Outbreak Joint FEI 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.

Table 1: Countries or Territories with reported confirmed cases of 2019-nCoV, 26 January 2020

Region	Countries	Confirmed cases	Suspected cases	Deaths	Recovered cases
Asia	China*	2755		80	
	Thailand	8			
	Japan	4			
	Malaysia	4			
	Singapore	4			
	South Korea	3			
	Vietnam	2			
	Nepal	1			
Oceania	Australia	4			
Europe	France	3			
North America	United States of America**	5			
	Canada	1			
	Total	2794		80	54

*Confirmed cases in China include Mainland China (2737), Hong Kong (8), Macau (6) and Taiwan (4)

** Confirmed cases in the United States of America were reported in the states of California (2), Washington (1), Illinois (1) and Arizona (1)

Source: Johns Hopkins University's Centre for Science and Engineering 23:00hr EST. 26 January 2020.
<https://gisanddata.maps.arcgis.com/apps/opsdashboard/index.html#/bda7594740fd40299423467b48e9ecf6>

2. Global Actions to date

- **WHO** - The World Health Organization (WHO) sent directives to hospitals around the world on infection, prevention and control? The World Health Organization on 24 January **updated their advice for international traffic** in relation to the outbreak of the novel coronavirus 2019-nCoV. 'WHO advises that measures to limit the risk of exportation or importation of the disease should be implemented, without unnecessary restrictions of international traffic.' <https://www.who.int/ith/2020-24-01-outbreak-of-Pneumonia-caused-by-new-coronavirus/en/>
- **WHO / IHR-EC** - The Emergency Committee under the International Health Regulations (IHR) (2005) was convened by WHO on 23 January and have declined to declare the current situation a Public Health Emergency of International Concern (PHEIC). The Committee will meet again in the coming week to re-assess the situation. An update will be provided once the outcomes are known.
- **China:** Chinese authorities have imposed travel bans Hubei Province and flights, trains, buses and ferries connecting Wuhan to other cities in Hubei have been suspended, according to a report in People's Daily. Hubei authorities also have suspended operations at local travel agencies and ordered all schools to postpone the start of spring semester classes, according to the newspaper. Chinese authorities have also reported that all unnecessary or non-essential large-scale public gatherings will not be approved during the Spring Festival, which starts on 25 January in China (WHO, 2020).

- **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 – See *WHO Guidance on entry and exit screening* <https://www.who.int/ith/2020-24-01-outbreak-of-Pneumonia-caused-by-new-coronavirus/en/> .
- **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](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 and Prevention (CDC)** – CDC has established an Incident Management System to coordinate a domestic and international public health response. On January 23, 2020, CDC updated the Level 2 travel health notice for Wuhan City, Hubei Province, China to Level 3, “Avoid Nonessential Travel” and is advising travelers that preliminary information suggests that older adults with underlying health conditions may be at increased risk for severe disease ([CDC](#)). CDC also issued a Level 2 Alert (“Practice Enhanced Precautions”) for the rest of China as the outbreak continues to grow. CDC is taking proactive preparedness precautions ([CDC](#)).

CARPHA’s Response

CARPHA’s is work closely with its international health partners, CMS and Caribbean coordinating partners and mechanisms to respond to the threat and to prepare CMS to prevent further transmission from exported case if they were to happen in countries. Key actions by CARPHA to date:

- CARPHA has activated its Incident Management Team (IMT) and is coordinating the Regional preparedness and response to this new incident.
- CARPHA has issued two Situation Reports (SITREPS) to CARPHA Member States (CMS), and these have shared with CDEMA and CARICOM, CTO, CHTA and other regional stakeholders
- CARPHA has developed Travellers guidelines which have been shared with CTO and CHTA as well as CMS, and shared with CDEMA and CARICOM
- CARPHA is developing air and sea port guidelines for dissemination on Tuesday
- CARPHA has issued two press releases and shared with CMS, CDEMA, CARICOM CTO, CHTA and other regional stakeholders
- CARPHA met with Professor Fergusson, Imperial College of London, Public Health England and Public Health England, Dutch and French Health Authorities to discuss preparedness and response.
- Coordination with CDEMA: CDEMA in association with CARPHA is convening a joint briefing of National Disaster Coordinators planned for Tuesday, 28 January.
- CARPHA is convening the Regional Coordinating Mechanism for Health Security. A virtual meeting is planned for 29 January 2020.

3. Enhanced Surveillance

WHO has released an interim guidance ([https://www.who.int/publications-detail/global-surveillance-for-human-infection-with-novel-coronavirus-\(2019-ncov\)](https://www.who.int/publications-detail/global-surveillance-for-human-infection-with-novel-coronavirus-(2019-ncov))) 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. Case definitions to guide surveillance are presented in Table 2.

Table 2: Updated Case Definitions for surveillance include confirmed, probable and suspected cases (WHO, 2020).

Type of Cases	Definition
Confirmed cases	A person with laboratory confirmation of 2019-nCoV infection, irrespective of clinical signs and symptoms.
Probable cases	A suspect case for whom testing for 2019nCoV is inconclusive or for whom testing was positive on a pan-coronavirus assay.
Suspected cases	<p>1) Patients with severe acute respiratory infection (SARI) with no other etiology that fully explains the clinical presentation AND at least one of the following:</p> <ul style="list-style-type: none"> • a history of travel to or a person who lived in Wuhan, Hubei Province China in the 14 days prior to symptom onset or, • is a health care worker in an environment where SARI patients of unknown etiology are being cared for. <p>2) Patient with any acute respiratory illness AND at least one of the following:</p> <ul style="list-style-type: none"> • close contact with a confirmed or probable case of 2019-nCoV in the 14 days prior to illness onset, or • visiting or working in a live animal market in Wuhan, Hubei Province, China in the 14 days prior to symptom onset, or <p>worked or attended a health care facility in the 14 days prior to onset of symptoms where patients with hospital-associated 2019-nCov infections have been reported</p>

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. Clinical Management

WHO has developed interim protocols for the clinical management of severe acute respiratory infection when novel coronavirus (nCoV) infection is suspected. CARPHA recommends that CMS follow the WHO guidelines for consistency. Once more information becomes available on the nature of the disease, tailored guidelines will be developed by CARPHA to assist CMS.

Current Guidelines available from the WHO website include the following:

- **Clinical management of severe acute respiratory infection when novel coronavirus (nCoV) infection is suspected.** This document is intended for clinicians taking care of hospitalized adult and pediatric patients with severe acute respiratory infection (SARI) when a nCoV infection is suspected. It is not meant to replace clinical judgment or specialist consultation but rather to strengthen clinical management of these patients and provide to up-to-date guidance. Best practices for SARI including infection prevention and control and optimized supportive care for severely ill patients are essential. Document Link https://www.who.int/docs/default-source/coronaviruse/clinical-management-of-novel-cov.pdf?sfvrsn=bc7da517_2
- **National capacities review tool for a novel coronavirus.** The main aim of the national capacities review tool is to better understand existing capacities in the area of detection and response to a novel coronavirus (nCoV) that is zoonotic and causes respiratory disease. The tool was developed with other coronaviruses, such as SARS-CoV and MERS-CoV, in mind and in consultation with member states. This information will help national authorities to i) identify main gaps ii) perform risk assessments and iii) plan for additional investigations, response and control actions. <https://www.who.int/internal-publications-detail/national-capacities-review-tool-for-a-novelcoronavirus>

6. Recommendations for CARPHA Member States (CMS)

1. Review national public health emergency preparedness and response plans to ensure these can address respiratory diseases including novel coronaviruses
2. CMS are advised to review their public health emergency contingency plans, to ensure these can be used for potential nCoV events, and that these are available at each designated ports of entry (PoE).
3. CMS are to develop local communications material and are encouraged to use CARPHA's documents or WHO website as a guide depending on availability.
4. CARPHA encourages CMS to follow the WHO guidelines as listed in Box 1, BUT entrance screening (temperature screening) at ports of entry should only be implemented only when the necessary staff, support structures and systems are in place.
5. 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).
6. 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 to CARPHA for confirmatory testing.
7. Inform CARPHA immediately, if a suspected case is identified in-country.

CARPHA would like to draw member States attention to the Updated WHO advice for international traffic in relation to the outbreak of the novel coronavirus 2019-nCoV (Box 1).

Box 1: Updated WHO advice for international traffic in relation to the outbreak of the novel coronavirus 2019-nCoV <https://www.who.int/ith/2020-24-01-outbreak-of-Pneumonia-caused-by-new-coronavirus/en/>

I. Advice for entry screening in countries/areas without transmission of the novel coronavirus 2019-nCoV

Evidence shows that temperature screening to detect potential suspect cases at entry may miss travelers incubating the disease or travelers concealing fever during travel and may require substantial investments. However, during the current outbreak with the novel coronavirus 2019-nCoV, most exported cases were detected through entry screening. The risk of importation of the disease may be reduced if temperature screening at entry is associated with early detection of symptomatic passengers and their referral for medical follow up.

Temperature screening should always be accompanied by dissemination of risk communication messages at points of entry. This can be done through posters, leaflets, electronic bulletin, etc., aiming at raising awareness among travelers about signs and symptoms of the disease, and encouragement of health care seeking behavior, including when to seek medical care, and report of their travel history.

Counties implementing temperature screening are encouraged to establish proper mechanism for data collection and analysis, e.g. numbers of travelers screened and confirmed cases out of screened passengers, and method of screening. In implementing entry screening, countries should consider national policies and capacity.

Public health authorities should reinforce collaboration with airlines operators for case management on board aircraft and reporting, should a traveler with respiratory disease symptoms is detected, in accordance with the IATA guidance for cabin crew to manage suspected communicable disease on board an aircraft.

II. Advice for exit screening in countries or areas with ongoing transmission of the novel coronavirus 2019-nCoV (currently People's Republic of China)

Conduct exit screening at international airports and ports in the affected areas, with the aim of early detection of symptomatic travelers for further evaluation and treatment, and thus prevent exportation of the disease. while minimizing interference with international traffic.

Exit screening includes checking for signs and symptoms (fever above 38°, cough), interview of passengers with respiratory infection symptoms leaving the affected areas with regards to potential exposure to high-risk contacts or to the presumed animal source, directing symptomatic travelers to further medical examination, followed by testing for 2019-nCoV, and keeping confirmed cases under isolation and treatment.

Encourage screening at domestic airports, railway stations, and long-distance bus stations as necessary.

Travelers who had contact with confirmed cases or direct exposure to potential source of infection should be placed under medical observation. High-risk contacts should avoid travel for the duration of the incubation period (up to 14 days).

Implement health information campaigns at points of entry to raise awareness of reducing the general risk of acute respiratory infections and the measures required, should a traveler develop signs and symptoms suggestive of infection with the 2019-nCoV and how they can obtain assistance.

7. 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. The latest media release is available from CARPHA's website <http://carpha.org/Portals/0/articles/CARPHA%20MediaReleaseCoronavirus.pdf>

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