Outbreak Brief #4: Novel Coronavirus (2019-nCoV) Global Epidemic

Date of Issue: 11 February 2020

43,108 cases and 1,018 deaths

Data sources: National Health Commission of the People's Republic of China, World Health Organization, European Centre for Disease Prevention and Control, the U.S. Centers for Disease Control and Prevention, and African Union Member States

Outbreak Update: Since the last brief, 22,519 new novel coronavirus (2019-nCoV) cases and 592 new deaths have been reported globally. To date, 43,108 total 2019-nCoV confirmed cases[1] and 1,018 related deaths have been reported. Most cases (42,644; 99%) and deaths (1,016; 99%) have been reported from mainland China. Twenty-seven different regions and countries outside of mainland China have reported 464 cases: Australia (15), Belgium (1), Cambodia (1), Canada (7), Finland (1), France (11), Germany (14), Hong Kong (42), India (3), Italy (3), Japan (26 mainland; 135 international conveyance), Thailand (32), Nepal (1), Macau (10), Malaysia (18), the Philippines (3), Russia (2), Singapore (45), South Korea (28), Spain (2), Sri Lanka (1), Sweden (1), Taiwan (18), United Arab Emirates (8), United Kingdom (8), the United States (13), and Vietnam (15). Secondary transmission is being reported in several countries including: China, France, Germany, Japan, South Korea, Thailand, United States, and Vietnam. The Philippines and Hong Kong have reported 1 death each, these are the only locations outside of mainland China reporting fatalities. The case fatality rate for 2019-nCoV has remained between 2-3% throughout the outbreak. Early case reviews from China are showing that older individuals and those with pre-existing health conditions (e.g. hypertension, cardiovascular disease, diabetes, and cancer) are more likely to have severe illness[2].

No confirmed 2019-nCoV cases have been reported in Africa. To date, sixteen countries in Africa have reported persons under investigation (PUI) for 2019-nCoV: Angola, Botswana, Burkina Faso, Côte d'Ivoire, Ethiopia, Equatorial Guinea, Ghana, Guinea, Kenya, Madagascar, Mauritius, Namibia, South Africa, South Sudan, Sudan, and Uganda. Samples from Burkina Fossa are currently undergoing confirmatory testing. All remaining samples taken from PUI have tested negative for 2019-nCoV. To date, the first African to be diagnosed with 2019-nCoV is a 21-year-old Cameroonian student studying at Yangtze University in Hubei province.

---

[1] WHO surveillance case definitions for human infection with novel coronavirus (ncov): https://www.who.int/publications-detail/surveillance-case-definitions-for-human-infection-with-novel-coronavirus-(ncov)

[2] Wang, et. al. JAMA. February 7, 2020. https://jamanetwork.com/journals/jama/fullarticle/2761044

Background: On 10 January 2020, Chinese health officials reported 41 cases of pneumonia due to a novel coronavirus (2019-nCoV), including seven patients with severe illness and one death. Symptoms have included fever, cough, and difficulty breathing. The earliest diagnosis date for a case identified in China is 08 December 2019. Preliminary analysis of viral genomes from China and other countries suggests that initial transmission from a zoonotic reservoir to humans could have occurred as early as late October. The first cases reported had links to a seafood and live animal market in Wuhan, China, suggesting infection of humans from an animal source. Health authorities in China have limited transportation in and out of heavily affected cities and are continuing to monitor close contacts, including health care workers, for illness. Several territories in Asia and countries across the globe are screening incoming travelers from Wuhan.

Coronaviruses are a large family of viruses. There are several known human coronaviruses that usually only cause mild respiratory disease, such as the common cold. However, at least twice previously, coronaviruses have emerged to infect people and cause severe disease: severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS). The cases in this outbreak tested negative for both SARS and MERS. Clinical characteristics of infection, such as incubation period, have not yet been determined. Based on the incubation period of SARS and MERS, signs of 2019-nCoV could appear from 2-14 days after exposure. Human to human transmission has been documented, and healthcare workers have been infected. Like other coronaviruses, people may be infectious before showing any symptoms of the disease.

Africa CDC Response:

1. Africa CDC activated its Emergency Operations Center and appointed its Incident Management System (IMS) for the 2019-nCoV outbreak on 27 January 2020.
2. From 6-8 February 2020 in Senegal, Africa CDC trained 16 African laboratories to diagnose 2019-nCoV using PCR: Côte d'Ivoire, Cameroon, DRC, Egypt, Ethiopia, the Gambia, Gabon, Ghana, Kenya, Nigeria, Morocco, Senegal, South Africa, Tunisia, Uganda, and Zambia. A second training for 15 additional Member States will be held on 20-22 February 2020 in South Africa in partnership with NICD.
3. Africa CDC is coordinating with partners to establish sequencing capacity in 6 selected reference laboratories as well as external quality assessment or proficiency testing for 2019- nCoV for all laboratories with 2019-CoV testing capacity.
4. Member States can use WHO's existing specimen referral network for influenza to ship their specimens to laboratories with capacity to test for 2019-nCoV. For a full list of laboratories in Africa and how to submit specimens, Member States should contact the WHO country office and Africa CDC at yenewk@africa-union.org.

5. Africa CDC is working to train and deploy epidemiologists at headquarters and within the RCCs for daily event tracking, risk analysis, and generation of critical information to inform Member States response and control efforts.
6. Africa CDC will be working with Member States to build infection prevention and control capacities in healthcare facilities and with the airline sector to support screening of travelers. The first IPC training, targeting 15 Member States, takes place from 20-21 February 2020 in Abuja, Nigeria.
7. Africa CDC is holding weekly updates with national public health institutes in Member States and forming working groups for high priority areas of coronavirus control, including: surveillance; laboratory diagnosis; infection prevention and control; clinical care; and risk communication.
8. Africa CDC will continue to provide updated and relevant information to Member States as the outbreak evolves.

Recommendations for Member States:

1. All Member States should enhance their surveillance for severe acute respiratory infections (SARI)[3] and to carefully review any unusual patterns of SARI or pneumonia cases. Examples of enhanced surveillance include:
    a. Adding questions about travel and testing for coronaviruses to existing influenza surveillance systems;
    b. Notifying healthcare facilities to immediately inform local public health officials about persons who meet the case definition for SARI and recently traveled to Wuhan (or other affected countries).
2. All Member States should a) activate their Emergency Operations Centers and rapid response teams for 2019-nCoV, b) exercise their emergency response systems for readiness.
3. Member States that receive direct or connecting flights from China should screen incoming passengers for severe respiratory illness and a history of recent travel to Wuhan and/or mainland China. Member States should be prepared to expand questions about recent travel to additional countries as the outbreak evolves.
4. Notify WHO and Africa CDC immediately if suspected or confirmed cases of infection with novel coronavirus are identified. Africa CDC should be notified by emailing AfricaCDCEBS@africa-union.org.

[3] WHO SARI case definition: anyone with an acute respiratory infection with history of fever (or measured fever of ≥ 38 C°) and cough with symptom onset within the last 10 days that requires hospitalization. https://www.who.int/influenza/surveillance_monitoring/ili_sari_surveillance_case_definition/en/

5. Prepare to collect specimens from patients suspected of having novel coronavirus infection. Interim guidance on specimen collection and handling is available from WHO at https://www.who.int/health-topics/coronavirus/laboratory-diagnostics-for-novel-coronavirus.
6. Provide guidance to the general public about seeking immediate medical care and informing healthcare providers about recent travel in anyone who develops symptoms of severe respiratory illness and recently traveled to Wuhan or one of the affected areas.

Resources for more information:

- China CDC. Coronavirus overview. http://www.chinacdc.cn/yyrdgz/202001/t20200109_211159.html
- European Centre for Disease Prevention and Control. Novel coronavirus overview. https://www.ecdc.europa.eu/en/novel-coronavirus-china
- National Health Commission of the People's Republic of China. http://www.nhc.gov.cn/xcs/yqtb/list_gzbd.shtml
- Shanghai Public Health Clinical Center & School of Public Health. 10 January 2020. Initial genome release of novel coronavirus. http://virological.org/t/initial-genome-release-of-novel-coronavirus/319
- US Centers for Disease Control and Prevention. 14 January 2020. Novel Coronavirus (2019-nCoV), Wuhan, China. https://www.cdc.gov/coronavirus/novel-coronavirus-2019.html
- WHO. Coronavirus overview. https://www.who.int/health-topics/coronavirus
- WHO. Technical Guidance. https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance