CDC WEEKLY KEY MESSAGES

Coronavirus Disease 2019 (COVID-19) Outbreak

February 16, 2020

This document summarizes key messages about the COVID-19 outbreak and the response. It will be updated and distributed regularly. For the most current information, visit www.cdc.gov/COVID19.
All content updated since February 3 is shown in colored text.

CONTENTS

CORONAVIRUS DISEASE 2019 (COVID-19) NAMING UPDATES

- The International Committee on Taxonomy of Viruses named the novel coronavirus causing an outbreak of respiratory illness that was first detected in Wuhan, Hubei Province, China, Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2).
    - Due to potential for confusion with SARS-CoV, where possible, public communications will use "the virus that causes COVID-19."
- On February 11, 2020, the World Health Organization (WHO) named the disease caused by this virus Coronavirus Disease 2019 (COVID-19).
    - **Disease name:** COVID-19

OUTBREAK SUMMARY

- There is an expanding outbreak of COVID-19, centered in China, caused by a novel (new) coronavirus.
- The new virus can cause illness varying from mild to severe, including potentially resulting in death. It can spread from person-to-person.
- This virus is spreading from person-to-person in China. A growing number of countries are reporting cases in travelers from China and some limited person-to-person spread has been reported in countries outside of China, including in the United States.
- Global case numbers are reported by the World Health Organization in their Coronavirus Disease 2019 (COVID-19) situation reports.
    - As of **February 16, more than 50,000** cases have been identified worldwide, including **15** in the United States. Fewer than 700 cases have occurred outside China.
- On January 30, WHO declared this outbreak a Public Health Emergency of International Concern (PHEIC). A PHEIC is declared if an event poses a public health threat to other nations through the spread of disease and potentially requires a coordinated international response.
- On January 31, Health and Human Services Secretary Alex M. Azar II declared a public health emergency for the United States to aid the nation's healthcare community in responding to COVID-19.
- Also on January 31, the President of the United States issued a "Proclamation on Suspension of Entry as Immigrants and Nonimmigrants of Persons who Pose a Risk of Transmitting 2019 Novel Coronavirus."
- The situation is rapidly changing, and CDC is monitoring it closely. Guidance will be updated as needed.
- Outbreaks like this — when a new virus has emerged to infect people and spread between people — are especially concerning.
- This is a very serious public health threat and the federal government is working closely with state, local, tribal, and territorial partners, as well as public health partners, to respond to this public health threat.
- The goal of the ongoing US public health response is to minimize introductions of this virus, detect new cases quickly, and reduce community spread of this new coronavirus in the US.
- The coming days and weeks are likely to bring more confirmed cases of COVID-19 in the United States and globally, but strong public health measures now may blunt the impact of the virus in the United States.
- While it is unclear how this situation will evolve in the United States, CDC is preparing as if it were the next pandemic, while hoping it is not.
- The current outbreak meets two criteria for a pandemic. It is a new virus and it is capable of person-to-person spread. If sustained person-to-person spread in the community begins outside in China, this will increase the likelihood that a global pandemic will result.
- Extensive work has been done over the past 15 years in the United States to prepare for an influenza pandemic.

- The newly emerged coronavirus disease 2019 (COVID-19) is a respiratory disease that seems to be spreading much like flu.
- Guidance developed for influenza pandemic preparedness would be appropriate in the event the current COVID-19 outbreak triggers a pandemic.
- Selected pandemic preparedness materials are available online.

OUTBREAK STATISTICS

As of **February 14, 2020**:

- US cases: **15**
- US deaths: 0
- Total patients under investigation (PUI): **443**
    - Positive: **15**
    - Negative: **347**
    - Pending: **81**
- States with patients under investigation: **42**
- The US Embassy in China announced the death of the first American citizen from COVID-19 occurring in that country on February 7.

For global cases, please see the daily situation reports from the World Health Organization.

OUTBREAK BACKGROUND

- In early January 2020, Chinese health officials identified a novel (new) coronavirus (now named SARS-CoV-2) linked to an outbreak of respiratory illness in Wuhan, Hubei Province, China.
- Most cases have been detected in China, but some cases have been detected in more than two dozen other locations. Most infections outside of China have occurred in travelers coming from Wuhan City.
- Initially, many of the patients in the Wuhan outbreak reportedly had some link to a large seafood and animal market, suggesting animal-to-person spread.
- Since then, Chinese officials report that sustained person-to-person spread in the community is occurring in China.
- Most cases in the US have been associated with travel to Wuhan, China; however, person-to-person spread also has been seen in close (household) contacts of confirmed COVID-19 cases.
- Coronaviruses are a group of viruses that have a halo or crown-like (corona) appearance when viewed under a microscope. They are common in many different species of animals, including camels, cattle, cats, and bats.
- Human coronaviruses are a common cause of mild to moderate upper-respiratory illness. But three coronaviruses have emerged to cause more severe illness: Severe Acute Respiratory Syndrome (SARS-CoV), Middle East Respiratory Syndrome (MERS-CoV), and now the virus that causes COVID-19.

TRANSMISSION

- Much is unknown about how the new coronavirus that causes COVID-19 spreads. Current knowledge is largely based on what is known about similar coronaviruses.
- Most often, person-to-person spread is thought to happen among people in close contact (about 6 feet) with each other.
- Person-to-person spread is thought to occur mainly via respiratory droplets produced when an infected person coughs or sneezes, similar to how influenza and other respiratory pathogens spread. These droplets can land in the mouths or noses of people who are nearby or possibly be inhaled into the lungs.
- How easily a virus spreads person-to-person can vary. Some viruses are highly contagious (like measles), while other viruses are less so.
- Based on our current knowledge, it is unclear whether a person may become infected with the new coronavirus by touching a surface or object contaminated with the virus and then touching their own mouth, nose, or possibly their eyes.
- Typically, with most respiratory viruses, people are thought to be most contagious when they are most symptomatic (sickest).
- Mother-to-child transmission during pregnancy is unlikely, but after birth a newborn is susceptible to person-to-person spread.
- To date, CDC does not have any evidence to suggest that animals imported from China pose a risk for spreading the new coronavirus in the United States.
- At this time, CDC has no data to suggest that this new coronavirus or other similar coronaviruses are spread by mosquitoes.
    - Mosquitoes cannot spread all types of viruses. For a virus to pass to a person through a mosquito bite, the virus must be able to replicate inside the mosquito.
- There is much more to learn about the spread of this new coronavirus, severity of the disease, and other features associated with this outbreak and investigations are ongoing. This information will further inform the risk assessment.

DIAGNOSIS AND TREATMENT

- CDC developed a real time Reverse Transcription-Polymerase Chain Reaction (rRT-PCR) test to diagnose COVID-19 in respiratory samples from clinical specimens.
- On January 24, CDC publicly posted the assay protocol for this test.
- CDC submitted an Emergency Use Authorization (EUA) package to the U.S. Food and Drug Administration on February 3 for its test.
- FDA approved the Emergency Use Authorization on February 4.
- The kits are distributed through the International Reagent Resource (IRR).
- IRR began distribution of the test kits to states, but shortly thereafter performance issues were identified related to a problem in the manufacturing of one of the reagents which led to laboratories not being able to verify the test performance.

- CDC is remanufacturing the kits using more robust quality control measures. New tests will be distributed once this issue has been addressed.
- CDC continues to perform initial and confirmatory testing.
- There is no specific antiviral treatment for COVID-19. People with COVID-19 should receive supportive care to help relieve symptoms.
- For severe cases, treatment should include care to support vital organ functions.

PREVENTION

- There is currently no vaccine to prevent COVID-19. The best way to prevent infection is to avoid being exposed to the virus.
- CDC always recommends everyday preventive actions to help prevent the spread of respiratory viruses, including:
    - Avoid touching your eyes, nose, and mouth with unwashed hands.
    - Avoid close contact with people who are sick.
    - Stay home when you are sick.
    - Cover your cough or sneeze with a tissue, then throw the tissue in the trash.
    - Clean and disinfect frequently touched objects and surfaces using a regular household cleaning spray or wipe.
    - Wash your hands often with soap and water for at least 20 seconds, especially after going to the bathroom; before eating; and after blowing your nose, coughing, or sneezing.
    - If soap and water are not readily available, use an alcohol-based hand sanitizer with at least 60% alcohol. Always wash hands with soap and water if hands are visibly dirty.

MINIMIZING STIGMA AND MISINFORMATION

- Minimizing stigma and misinformation is important, especially during contagious disease outbreaks.
- **Everyone:** Know the facts about COVID-19 and help prevent the spread of rumors:
    - Fight stigma and fear by supporting people who are coming back to school or work after completing their quarantine or isolation period for COVID-19 exposure or illness.
    - Someone who has completed their quarantine or met the requirements to discontinue infection control measures does not pose a risk of spreading COVID-19.
    - People of Asian descent, including Chinese Americans, are not more likely to get coronavirus than anyone else. Help fight fear by letting people know that being of Asian descent does not increase the chance of getting or spreading COVID-19.
    - Viruses cannot target people from specific populations, ethnicities, or racial backgrounds.
        - People who have not been in contact with a person who is a confirmed or suspected case are not at greater risk of acquiring and spreading this new virus than others.

- People who returned more than 14 days ago from areas where COVID-19 is active and do not have symptoms of coronavirus do not put others at risk.
- To help counter stigma, public health professionals can:
    - Maintain privacy and confidentiality of those seeking health care and those who may be part of any contact investigation.
    - Communicate the risk or lack of risk from associations with products, people, and places in a timely manner.
    - Raise awareness of COVID-19 without increasing fear.
    - Share accurate information about how the virus spreads.
    - Speak out against negative behaviors, including negative statements on social media about groups of people, or exclusion of people who pose no risk from regular activities.
        - Be cautious about the images that are shared. Make sure they do not reinforce stereotypes.
        - Engage with stigmatized groups in person and through media channels including news media and social media.
- Share the need for social support for people who have returned from China or are worried about friends or relatives in the affected region.

TRAVEL

Travel from China:

- President Trump issued a Presidential Proclamation on January 31, to implement temporary measures to increase our abilities to detect and contain the novel coronavirus proactively and aggressively.
- The proclamation took effect at 5 p.m. EST, Sunday, February 2.
- The proclamation suspends entry to the United States of foreign nationals who have been in China (excluding Hong Kong and Macau) in the past 14 days. There are some exemptions, including for immediate family members of US citizens and legal permanent residents. (Hereafter referred to as "American citizens and exempted persons.")
- In addition:
    - All American citizens and exempted persons coming from China will be directed to ("**funneled to"**) one of 11 US airports.
    - American citizens and exempted persons who have been in Hubei province in the previous 14 days will have an additional health assessment (screened for fever, cough, or difficulty breathing).
        - If symptomatic, American citizens and exempted persons will be transferred for further medical evaluation. (They will not be able to complete their itinerary.)
        - If asymptomatic, American citizens and exempted persons will be subject to a mandatory quarantine at or near that location until 14 days after they left Hubei Province. (They will not be able to complete their itinerary.)

    - American citizens and exempted persons who have been in other parts of mainland China (outside of Hubei Province) in the previous 14 days will have an additional health assessment (screened for fever, cough, or difficulty breathing).
        - If symptomatic, American citizens and exempted persons will be transferred for medical evaluation. (They will not be able to complete their itinerary at that time.)
        - If asymptomatic, American citizens and exempted persons will be allowed to reach their final destination and, after arrival, will self-monitor under public health supervision for 14 days.
- The 11 airports where travelers are being funneled include:
    - John F. Kennedy International Airport (JFK), New York
    - Chicago O'Hare International Airport (ORD), Illinois
    - San Francisco International Airport (SFO), California
    - Seattle-Tacoma International Airport (SEA), Washington
    - Daniel K. Inouye International Airport (HNL), Hawaii
    - Los Angeles International Airport (LAX), California
    - Hartsfield-Jackson Atlanta International Airport (ATL), Georgia
    - Washington-Dulles International Airport (IAD), Virginia
    - Newark Liberty International Airport (EWR), New Jersey
    - Dallas/Fort Worth International Airport (DFW), Texas
    - Detroit Metropolitan Airport (DTW), Michigan
- As of February 14, about 38,000 people have been screened at US airports.

Travel to China:

- On January 27, CDC issued a level 3 Travel Health Notice for China recommending that all travelers avoid non-essential travel (this does not include the Special Administrative Regions of Hong Kong and Macau, or the island of Taiwan).
- On January 30, the US State Department issued a level 4 travel advisory, their highest threat level, requesting Americans not to travel to China because of the public health threat posed by COVID-19.

Repatriation flights and quarantine orders:

- CDC has supported the Department of State in the safe and expedient ordered departure of US citizens and residents affected by outbreaks of COVID-19.
- Five chartered flights returned passengers from Wuhan City, China.
- Most recently, passengers from a cruise ship docked in Japan were in the process of being repatriated. (See section: Diamond Princess)
- The Department of Health and Human Services (DHHS) Secretary, under statutory authority, issued federal quarantine orders to all such passengers entering the United States.
- The quarantine period is for 14 days.

- The quarantine is a precautionary and preventive step to maximize the containment of the virus in the interest of the health of the American public.
- This quarantine order also serves to protect the health of the repatriated persons, their families, and their communities.
- Medical staff monitor the health of each traveler, including temperature checks and observation for respiratory symptoms.
- CDC works with the state and local public health departments to transport any passenger exhibiting symptoms to a hospital for further evaluation.
- At the end of the 14-day period, people who have not developed symptoms will be free to leave.
- On February 12, 195 people from the first chartered flight were discharged from quarantine.

Diamond Princess:

- CDC is supporting the Department of State-led mission to repatriate US citizens returning to the United States from Japan who were aboard the Diamond Princess cruise ship.
- There are approximately 400 US citizens onboard the Diamond Princess cruise ship.
- Due to the dynamic nature of the ongoing outbreak, the US government recommended that US citizens disembark and return to the United States.
- Americans returned by flights chartered by the State Department will be subject to a 14-day federal quarantine and be housed at two existing federal quarantine sites for repatriated travelers:
    - Travis Air Force Base in California
    - Joint Base San Antonio-Lackland in Texas
- Those passengers returning from Japan will be housed separately from people already in quarantine from previous Wuhan repatriation flights.
- These planes will be met by a team of US Government personnel deployed at these bases to assess the health of the passengers.
- The passengers were screened before leaving the ship and will be monitored and evaluated by medical and public health personnel during the trip and after arrival.
- Anyone who becomes ill on the flight will be sent directly to a local hospital for medical evaluation.
- The US Government is taking measures to protect the health of the people under quarantine, their loved ones, and their communities, as well as the communities where they are being temporarily housed.
- Based on what is known about this virus and other coronaviruses, CDC believes the risk to the communities temporarily housing these people is low.

WHAT CDC IS DOING

CDC Response in the US:

- The federal government is working closely with state, local, tribal, and territorial partners, as well as public health partners, to respond to this public health threat.

- The goal of the ongoing US public health response is to detect new cases quickly and prevent further spread of COVID-19 in this country.
- CDC established a COVID-19 Incident Management Structure on January 7. On January 21, CDC activated its Emergency Operations Center to better provide ongoing support to the COVID-19 response.
- On January 27, CDC issued updated travel guidance for China, recommending that travelers avoid all nonessential travel to all of the country (Level 3 Travel Health Notice).
- The US government has taken unprecedented steps with respect to travel in response to the growing public health threat posed by this new coronavirus.
    - Effective February 2, at 5pm, the US government suspended entry of foreign nationals who have been in China within the past 14 days.
    - US citizens, residents, and their immediate family members who have been in Hubei province and other parts of mainland China are allowed to enter the United States, but they are subject to health monitoring and possible quarantine for up to 14 days.
    - See more at: "Proclamation on Suspension of Entry as Immigrants and Nonimmigrants of Persons who Pose a Risk of Transmitting 2019 Novel Coronavirus".
- CDC issued an interim Health Alert Network (HAN) Update to inform state and local health departments and healthcare professionals about this outbreak on February 1.
- On January 30, CDC published guidance for healthcare professionals on the clinical care of COVID-19 patients.
- On February 3, CDC posted guidance for assessing the potential risk for various exposures to COVID-19 and managing those people appropriately.
- CDC has deployed multidisciplinary teams to support state health departments with clinical management, contact tracing, and communications.
- CDC has worked with the Department of State, supporting the safe return of Americans who have been stranded as a result of the ongoing outbreaks of COVID-19 and related travel restrictions. CDC has worked to assess the health of passengers as they return to the United States and provided continued daily monitoring of people who are quarantined.
- CDC has developed a real time Reverse Transcription-Polymerase Chain Reaction (rRT-PCR) test that can diagnose COVID-19 in respiratory and serum samples from clinical specimens. On January 24, CDC publicly posted the assay protocol for this test.
- CDC's International Reagent Resource began distributing test kits domestically on February 6. However, CDC identified a problem in the manufacturing of one of the three controls used in the verification process of the test.
    - To address this issue, CDC is remanufacturing the test kits, out of an abundance of caution, to ensure that laboratories have effective and reliable kits. This process is being expedited. The new kits will be made available to both domestic and international laboratories as soon as possible.
- CDC has been uploading the entire genome of the viruses from reported cases in the United States to GenBank as sequencing was completed.

- CDC has grown the virus in cell culture, which is necessary for further studies, including for additional genetic characterization. The cell-grown virus was sent to NIH's BEI Resources Repository for use by the broad scientific community.

Internationally:

Note: Due to the rapidly changing situation, any statements on CDC involvement in China need case-by-case clearance.

- CDC is working diligently and closely with partners to support the response to this novel coronavirus outbreak.
- CDC has staff stationed in more than 60 countries across the globe. CDC has offices in China, in a number of the countries reporting cases of COVID-19, and in countries that have not yet reported cases of COVID-19 but are busy with planning and preparedness efforts.
    - CDC and the government of China have collaborated for the past 30 years addressing public health priorities affecting the US, China, and the world.
- In addition to working with host country officials, CDC staff are working in coordination with Department of State and other agencies within US embassies.
- CDC is mobilizing Atlanta-based staff to support the response. Many of these staffers have extensive experience responding to global outbreaks.
- CDC has identified experts who are prepared to join a planned WHO mission to support efforts to better understand the severity and transmissibility of the virus.
- In China, CDC is an important technical partner for the Chinese Field Epidemiology Training Program (FETP).
    - Using classroom and hands-on experience, the China FETP program has graduated 279 epidemiologists who conducted more than 2,000 outbreak investigations as part of their training.
    - Specialized training tracks are now being established in non-communicable diseases and tuberculosis.
    - With technical guidance from CDC, 71 graduates completed training for the new Western FETP that supports 13 under-served provinces of China — remote areas more vulnerable to novel infections and with increasing transport corridors.
- CDC has supported China CDC's national influenza laboratory for more than 20 years.
- CDC works in close partnership with the China CDC's National Influenza Epidemiology, Virology, and Pandemic Preparedness Centers, China's provincial and local CDCs, hospitals, and academic institutions.
- CDC supports Chinese partners in monitoring seasonal and novel influenza viruses, as well as enhancing efforts to detect and respond to seasonal, avian, and other novel influenza viruses with pandemic potential. CDC's key supporting activities include:
    - Strengthening influenza surveillance for seasonal and novel influenza viruses
    - Conducting research to estimate disease burden and vaccine effectiveness among populations at greatest risk (including young children, older adults, and pregnant women)

- Promoting influenza vaccination policy development and coverage
- Supporting novel virus risk assessments
- Establishing pandemic influenza preparedness in China
- Maintaining close ties between US and China influenza experts

- In other countries, CDC is collaborating with WHO to support Ministries of Health to prepare and respond to the epidemic.
    - CDC is helping to support countries to implement WHO recommendations related to the diagnosis and care of patients, tracking the epidemic, and identifying people who might have COVID-19.
    - CDC staff are also starting to work together with country colleagues to conduct investigations that will help inform response efforts going forward.
    - CDC works closely with countries to establish FETPs that train a workforce of field epidemiologists —or disease detectives— to identify and contain outbreaks close to the source.

RECOMMENDATIONS

- CDC routinely advises that people help protect themselves from respiratory illnesses by washing their hands often, avoiding touching their face with unwashed hands, avoiding close contact with people who appear sick, and cleaning frequently touched surfaces.
    - CDC defines close contact as—
        - Being within about 6 feet (2 meters) of someone with COVID-19 for a prolonged period of time, such as living with, visiting, caring for or sharing a room in a healthcare facility
          - or –
        - By having direct contact with infectious secretions from a patient, such as being coughed on.

Recent Travelers to China:

- If you were in China and feel sick with fever, cough, or difficulty breathing, within 14 days after leaving the country, you should:
    - Seek medical advice. Before you go to a doctor's office or emergency room, call ahead and tell them about your recent travel and your symptoms.
    - Avoid contact with others.
    - Not travel while sick.
    - Cover your mouth and nose with a tissue or your sleeve (not your hands) when coughing or sneezing.
    - Wash your hands often with soap and water for at least 20 seconds to avoid spreading the virus to others. Use an alcohol-based hand sanitizer if soap and water are not available.

People Confirmed to Have, or Being Evaluated for, COVID-19:

- Your doctors and public health staff will evaluate whether you can be cared for at home. If it is determined that you can be isolated at home, you will be monitored by staff from your local or state health department. You should follow the prevention steps below until a healthcare professional or local or state health department says you can return to your normal activities. Detailed information is available at Interim Guidance for Preventing COVID-19 from Spreading to Others in Homes and Communities.
    - Stay home except to get medical care.
    - Separate yourself from other people in your home.
    - Call ahead before visiting your doctor.
    - Wear a facemask.
    - Cover your coughs and sneezes with a tissue or cough or sneeze into your sleeve.
    - Wash your hands often with soap and water for at least 20 seconds.
    - Avoid sharing household items like eating utensils, cups, or linens.
    - Monitor your symptoms and seek prompt medical attention if your symptoms worsen.

On February 3, CDC published interim guidance for state and local public health officials on how to assess and manage the risks posed by patients who may have been exposed to this new coronavirus.

- This guidance establishes four risk categories: High, Medium, Low and No Identifiable Risk.
- The categories are based on a person's travel history and possible contact with patients who have laboratory-confirmed infections.
- The guidance **offers recommendations** for movement restrictions and public health evaluations for people in different risk categories.
- **In most cases, state and local authorities will make these decisions. Federal public health authority primarily extends to international arrivals at ports of entry and preventing interstate communicable disease threats.**
- These guidelines are subject to change as the situation requires. They do not apply retroactively to people who have been in China during the previous 14 days and are already in the United States, or those being managed as part of a contact investigation.
- CDC will provide separate guidance for healthcare settings.

Close Contacts of Patients Under Investigation:

People who have had close contact with someone who is confirmed to have, or being evaluated for, COVID-19, should:

- Monitor your health starting from the day you first had close contact with the person and continue for 14 days after you last had close contact with the person. Watch for these signs and symptoms:
    - Fever—take your temperature twice a day.
    - Coughing.
    - Shortness of breath or difficulty breathing.
    - Other early symptoms to watch for are chills, body aches, sore throat, headache, diarrhea, nausea, vomiting, and runny nose.

- **If you develop fever or any of these symptoms, call your healthcare professional right away.**
    - **Before** going to your medical appointment, be sure to tell your healthcare professional about your close contact with someone who is confirmed to have, or being evaluated for, COVID-19. This notification will help the healthcare professional's office take steps to keep other people from getting infected. Ask your healthcare professional to call the local or state health department.
- If you do not have any symptoms, you can continue with your daily activities, such as going to work, school, or other public areas.
- Detailed information for caregivers and household members can be found on the Interim Guidance for Preventing COVID-19 from Spreading to Others in Homes and Communities web page.

For Healthcare Professionals:

Patients in the United States who meet the following criteria should be evaluated as a patient under investigation (PUI) in association with the outbreak of COVID-19 in Wuhan City, China.

Clinical Features	&	Epidemiologic Risk
Fever **or** signs/symptoms of lower respiratory illness (e.g., cough or shortness of breath)	**AND**	Any person, including healthcare workers, who has had close contact with a laboratory-confirmed COVID-19 patient within 14 days of symptom onset
Fever **and** signs/symptoms of a lower respiratory illness (e.g., cough or shortness of breath)	**AND**	A history of travel from **Hubei Province**, China within 14 days of symptom onset
Fever **and** signs/symptoms of a lower respiratory illness (e.g., cough or shortness of breath) requiring hospitalization	**AND**	A history of travel from mainland **China** within 14 days of symptom onset

Note: Fever may be subjective or confirmed. The criteria are intended to serve as guidance for evaluation. Patients should be evaluated and discussed with public health departments on a case-by-case basis if their clinical presentation or exposure history is equivocal (e.g., uncertain travel or exposure).The above criteria are available on the Interim Guidance for Healthcare Professionals web page.

Recommendations for Reporting, Testing, and Specimen Collection:

- Healthcare professionals should **immediately** notify both infection control personnel at their healthcare facility AND their local or state health department in the event of a PUI for COVID-19.
- State health departments that have identified a PUI should immediately contact CDC's Emergency Operations Center (EOC) at 770-488-7100 and complete a COVID-19 PUI case investigation form available on CDC's Interim Guidance for Healthcare Professionals.

- Clinical specimens should be collected from PUIs for routine testing of respiratory pathogens at either clinical or public health labs. Note that clinical laboratories should NOT attempt viral isolation from specimens collected from COVID-19 PUIs.
- **For biosafety reasons, it is not recommended to perform virus isolation in cell culture or initial characterization of viral agents recovered in cultures of specimens from a PUI for COVID-19.**
- To increase the likelihood of detecting the virus, CDC recommends collecting and testing multiple clinical specimens from different sites, including both lower and upper respiratory. Additional specimen types (e.g., stool, urine) may be collected and stored initially until decision is made by CDC whether additional specimen sources should be tested. Specimens should be collected as soon as possible once a PUI is identified regardless of time of symptom onset. Maintain proper infection control when collecting specimens. Additional guidance for collection, handling, and testing of clinical specimens is available on CDC's website. Detailed information on specimen types and shipping can be found on the Information for Laboratories web page.

INFECTION PREVENTION AND CONTROL FOR HEALTHCARE SETTINGS

- Healthcare personnel (HCP) are on the front lines of caring for patients with confirmed or possible COVID-19. HCP caring for these patients have an increased risk of exposure to this virus.
- HCP can minimize their risk of exposure when caring for confirmed or possible COVID-19 patients by following CDC infection prevention and control (IPC) guidelines, including use of recommended personal protective equipment (PPE).
- Based on what CDC knows now related to severity, transmission efficiency, and shedding duration, CDC is currently recommending Standard, Contact, and Airborne Precautions, including eye protection, when caring for patients with confirmed or possible COVID-19.
- As CDC learns more about COVID-19, and as the needs of the response within US healthcare facilities change, CDC will refine and update this early and aggressive IPC approach.
- Infection control procedures and appropriate use of PPE are necessary to prevent infections from spreading while caring for patients. CDC reminds all employers and HCP that PPE is only one aspect of safe care of patients with COVID-19.
    - Focusing only on PPE gives a false sense of security of safe care and worker safety.
    - It is critical to focus on other pathways to prevent spread of SARS-CoV-2 in healthcare settings. Examples include prompt screening and triage, limiting personnel in the room, and using Airborne Infection Isolation Rooms (AIIR).
- CDC's current guidelines are designed to prevent the spread of SARS-CoV-2 within healthcare facilities to healthcare personnel and other patients who may be exposed to a patient with confirmed or possible COVID-19.
- Healthcare personnel caring for patients with confirmed or suspected COVID-19 should adhere to CDC recommendations for infection prevention and control (IPC):
    - Assess and triage patients with acute respiratory symptoms and risk factors for COVID-19 to minimize chances of exposure. Place a facemask on the patient and isolating them in an AIIR, if available.

    - Use Standard, Contact, and Airborne Precautions, including eye protection, when caring for patients with confirmed or possible COVID-19.
    - Perform hand hygiene with alcohol-based hand sanitizer before and after all patient contact, before and after contact with potentially infectious material, and before putting on and upon removal of PPE, including gloves. Use soap and water if hands are visibly soiled.
    - Practice how to properly don, use, and doff PPE in a manner to prevent self-contamination.
    - Perform aerosol-generating procedures (e.g., sputum induction, open suctioning of airways) in an AIIR, while following appropriate IPC practices, including use of appropriate PPE.
    - The collection of respiratory specimens (e.g., nasopharyngeal swabs) are likely to induce coughing or sneezing. HCP collecting specimens for testing for COVID-19 from patients with known or suspected COVID-19 (i.e., PUI) should adhere to Standard, Contact, and Airborne Precautions, including the use of eye protection. These procedures should take place in an AIIR or in an examination room with the door closed. Ideally, the patient should not be placed in any room where room exhaust is recirculated within the building without HEPA filtration.
    - Healthcare facilities can minimize the chance for exposures by ensuring facility policies and practices are in place and implemented before patient arrival, upon patient arrival, and throughout the duration of the affected patient's time in the healthcare setting.
- Healthcare facilities should promptly notify state or local public health authorities of patients with known or possible COVID-19 (i.e., persons under investigation or PUIs), and should designate specific persons within the healthcare facility who are responsible for communication with public health officials and dissemination of information to HCP.
- All healthcare facilities should ensure that their personnel are correctly trained and capable of implementing infection control procedures. Individual healthcare personnel should ensure they understand and can adhere to infection control requirements.
- Routine cleaning and disinfection procedures are appropriate for SARS-CoV-2 in healthcare settings, including those patient-care areas in which aerosol-generating procedures are performed.
    - Products with EPA-approved emerging viral pathogens claims are recommended for use against SARS-CoV-2.
- Management of laundry, food service utensils, and medical waste should also be performed in accordance with routine procedures. Federal, state, and local guidelines and regulations specify the categories of medical waste that are subject to regulation and outline the requirements associated with treatment and disposal.
- As a reminder, the role of face masks is for source control, and not to prevent exposure.
- CDC recommends that employees who are confirmed to have COVID-19, those who appear to have acute respiratory illness symptoms upon arrival to work, and persons who become sick

during the work day promptly put on a facemask, be separated from other people, and be sent home immediately.

- If facemasks are not available, sick HCPs should cover their noses and mouths with a tissue when coughing or sneezing (or an elbow or shoulder if no tissue is available).

WHAT CDC IS DOING TO PROTECT HEALTHCARE PERSONNEL

- CDC is providing regular communication to the US healthcare community through targeted outreach activities.
- CDC is rapidly developing guidance and resources to protect US healthcare personnel. Current guidance and recommendations are designed to protect healthcare personnel and prevent the spread of the virus that causes COVID-19 within US healthcare facilities.
- CDC has deployed field teams to provide onsite infection control assessment and consultation to the US healthcare facilities currently treating confirmed COVID-19 patients and the passengers returning from China.

MANAGEMENT OF PATIENTS GUIDANCE FOR HEALTHCARE PROVIDERS

Clinical Presentation

- Most frequently reported symptoms of COVID-19 include fever, cough, sore throat, myalgia, or fatigue. Less commonly reported symptoms include sputum production, headache, hemoptysis, and diarrhea. Older patients and people with chronic medical conditions may be at higher risk of severe illness.
    - Possible risk factors for progressing to severe illness may include, but are not limited to, older age and underlying chronic medical conditions such as lung disease, cancer, heart failure, cerebrovascular disease, renal disease, liver disease, diabetes, immunocompromising conditions, and pregnancy.

Clinical Course

- Symptoms among reported cases of COVID-19 vary in severity from mild illness to severe or fatal illness.
- Some reports suggest the potential for clinical deterioration during the second week of illness.
- Among hospitalized patients with confirmed COVID-19, some will develop complications:
    - Acute respiratory distress syndrome (ARDS)
    - Intensive care for respiratory support
    - Pneumonia resulting in death
    - Secondary infection

Laboratory and Radiographic Findings

- SARS-CoV-2 RNA has been detected from upper and lower respiratory tract specimens, and the virus has been isolated from bronchoalveolar lavage fluid.

- The duration of shedding of SARS-CoV-2 RNA in the upper and lower respiratory tracts is not yet known but may be several weeks or longer.

Clinical Management and Treatment

- No specific treatment for COVID-19 is currently available. Prompt infection prevention and control measures and supportive management of complications is recommended.
- Patients with mild clinical presentation may not initially require hospitalization.
- The decision to monitor a patient in the inpatient or outpatient setting should be made on a case-by-case basis.

INTERIM GUIDANCE FOR BUSINESSES AND EMPLOYERS (NON-HEALTHCARE SETTINGS)

- Interim guidance for businesses and employers to plan for and respond to COVID-19 is now available on the CDC website. This interim guidance may help prevent workplace exposures to acute respiratory illnesses, including COVID-19, in non-healthcare settings. The guidance also provides planning considerations if there are more widespread, community outbreaks of COVID-19.
- Employers can use strategies now to prevent workplace exposures to acute respiratory illness, such as:
    - Actively encouraging sick employees to stay home
    - Separating sick employees
    - Emphasizing staying home when sick, respiratory etiquette, and hand hygiene by all employees
    - Performing routine environmental cleaning
    - Advising employees before traveling to take certain steps
    - Checking the CDC's Traveler's Health Notices website for the latest guidance and recommendations for each country to which you will travel
- For the general public, who are unlikely to be exposed to this virus, the immediate health risk from COVID-19 is considered low at this time. Some people, like healthcare workers caring for COVID-19 patients and other close contacts of COVID-19 patients, will have an increased risk of infection.
    - Employees who are well but who have a sick family member at home with COVID-19 should notify their supervisor and refer to CDC guidance for how to conduct a risk assessment of their potential exposure.
    - If an employee is confirmed to have COVID-19, employers should inform fellow employees of their possible exposure to COVID-19 in the workplace but maintain confidentiality as required by the Americans with Disabilities Act. Employees exposed to a co-worker with confirmed COVID-19 should refer to CDC guidance for how to conduct a risk assessment of their potential exposure.
- Employers should be ready to implement strategies to protect the workforce from COVID-19 while ensuring the continuity of operations.

- An infectious disease outbreak response plan should include possible work-related exposures and health risks to employees. The plan should also explore flexible worksites (e.g., telecommuting) and work hours in accordance with human resource policies.