

CDC WEEKLY KEY MESSAGES

Coronavirus Disease 2019 (COVID-19) Outbreak

March 1, 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 24 is shown in colored text.

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CORONAVIRUS DISEASE 2019 (COVID-19) NAMING

- 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 caused by a novel (new) coronavirus.
 - The outbreak began in China but is spreading worldwide and is threatening to cause a pandemic.
- Initially, many of the patients reportedly had some link to a large seafood and animal market, suggesting animal-to-person spread. Since then, sustained (ongoing) person-to-person spread in the community is occurring in some international locations.
- The newly emerged COVID-19 is a respiratory disease that seems to be spreading much like flu. It can spread from person-to-person.
- The new virus can cause illness varying from mild to severe, including potentially resulting in death.
- Outbreaks like this — when a new virus has emerged to infect people and spread between people — are especially concerning.

International

- Global case numbers are reported by WHO in their [COVID-19 situation reports](#).
 - As of **February 29, more than 85,000** cases have been identified worldwide. **More than 6,000 of these cases have occurred outside of 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.

Domestic

- 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.
- 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.
- **As the virus continues to spread internationally and in the United States, it becomes harder and harder contain its spread.**
- **During the week of February 23, several instances of infection with the virus that causes COVID-19 occurred in people with no travel history and no known source of exposure in multiple states. [See section "Possible U.S. cluster" below.]**

- [What is currently known about the potential cases of community spread has raised the level of concern about the immediate threat for COVID-19 for certain communities.](#)
- 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.
 - 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.](#)

U.S. OUTBREAK STATISTICS

Cases in the United States as of **February 29, 2020**:

- **Travel-related: 13** (12 confirmed, 1 presumptive positive)
- **Person-to-person spread: 9** (3 confirmed, 6 presumptive positive)
- **Total cases: 22** (15 confirmed, 7 presumptive positive)
- **Deaths: 1** (0 confirmed, 1 presumptive positive)

Persons repatriated to the United States and tested positive by CDC, as of **February 29, 2020**:

- Wuhan, China: **3**
- *Diamond Princess* Cruise Ship: **44**

For global cases, please see the WHO [daily situation reports](#).

POSSIBLE U.S. CLUSTER

- On February 29, CDC and public health officials in the state of Washington reported three hospitalized patients who have tested presumptive-positive for the virus that causes COVID-19.
- One of the patients has died. This is the first reported death in the United States from COVID-19.
- Two of the patients are from a long-term care facility where one is a healthcare worker.
 - This is the first reported case in a healthcare worker.
- Additional residents and staff of the long-term care facility who have not yet been tested for COVID-19 are reportedly either ill with respiratory symptoms or hospitalized with pneumonia of unknown cause.
- The patient who died was being treated in the same hospital as one of the other presumptive positive cases, but was not a resident of the long-term care facility.

- While there is an ongoing investigation, the source of these infections is currently unknown.
- Circumstances suggest person-to-person spread, including in the long-term care facility.
- CDC is deploying a team to Washington to support the ongoing investigation to find and identify how the patients were exposed and do extensive contact tracing of people who were exposed or might have been exposed to the patients.
- CDC infection control experts are assessing the risk of additional healthcare worker exposures and carefully reviewing infection control practices within the facility to protect residents and healthcare workers from further spread of COVID-19.
 - The general strategies CDC recommends to prevent the spread of COVID-19 in long-term care facilities (LTCF) are the same strategies these facilities use every day to detect and prevent the spread of other respiratory viruses like influenza. View [Strategies to Prevent the Spread of COVID-19 in LTCF](#) for more information.
 - All healthcare facilities [can take steps](#) now to prepare for COVID-19 and protect both their patients and staff.

CORONAVIRUS BACKGROUND

- 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.
- On February 28, the Hong Kong Agriculture, Fisheries and Conservation Department (AFCD) reported a pet dog had tested “weak positive” to COVID-19 through nose and mouth samples. The dog had contact with a person infected with COVID-19. View the [AFCD official report](#).
 - CDC is working with human and animal health partners to monitor this situation and will continue to provide updates as information becomes available.
 - It’s important to remember dogs that have their own coronaviruses.
 - To date, CDC has not received any reports of pets or other animals becoming sick with COVID-19. At this time, there is no evidence that pets, including dogs, can spread COVID-19.
 - There is no reason to think that any animals, including pets, in the United States might be a source of infection with this new coronavirus.

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 [through](#) 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.
- It may be possible that a person can get COVID-19 by touching a surface or object that has the virus on it and then touching their own mouth, nose, or possibly their eyes, but this is not thought to be the main way the virus spreads.
- 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 detect SARS-CoV-2 (the virus that causes 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 first manufactured batch of CDC test kits were made available for ordering by domestic and international partners through the agency's [International Reagent Resource \(IRR\)](#) on February 5.
- Upon arrival at public health laboratories, when laboratories began trying to verify the assay, several laboratories reported issues.
 - Specifically, some laboratories found sporadic reactivity in the negative control of one of the three assay components.
 - This sporadic activity resulted in an inconclusive test result.
- Routine quality control (QC) measures aim to identify these types of issues. It is unclear why QC did not detect this issue before the kits were sent out to states.

- On February 26, CDC, in conjunction with FDA, determined how to move forward and shared this information immediately with public health labs through the Association of Public Health Laboratories (APHL):
 - CDC is remanufacturing the test kits to ensure that laboratories have effective and reliable kits. The new kits will only include the two components (e.g., reagents) that are specific to novel coronavirus.
 - In the meantime, before new test kits are available:
 - States that were able to validate all three assays should continue to test in this manner.
 - States that were able to validate the other two assays (N1 and N2) can test using these two assays. We anticipate this will increase testing capacity to about 40 state and local health departments.
 - FDA granted CDC “enforcement discretion,” which means that testing in this manner can move forward while an updated EUA is officially completed.
 - CDC distributed updated instructions for use through APHL.
- On February 27, CDC distributed new test kits to 7 laboratories to serve as evaluation sites to ensure these health departments are able to verify the assay. An additional 40 test kits were hand carried to IRR for repackaging and distribution to additional public health labs.
- On February 28, IRR began to distribute new test kits to the additional 40 laboratories.
- 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 [blowing your nose, coughing or sneezing; going to the bathroom; and before eating or preparing food.](#)
 - 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 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. Let 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 an [area with widespread or ongoing community spread](#) 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 [while showing empathy for people's concerns and fears](#).
 - 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 Restrictions from China and Iran:

- 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 27, about 48,000 people have been screened at US airports.
- On February 29, the U.S. government announced it was suspending entry of foreign nationals who have been in Iran within the past 14 days.

Travel Notices and Advisories:

- To date, CDC has issued:
 - [Level 3 Travel Health Notices \(Avoid Nonessential Travel\) for China, Iran, Italy, and South Korea.](#)
 - [Level 2 Travel Health Notices \(Practice Enhanced Precautions\) for Japan.](#)
 - [Level 1 Travel Health Notices \(Practice Usual Precautions\) for Hong Kong.](#)
- CDC recommends that all travelers reconsider cruise ship voyages into or within Asia at this time.
 - CDC's recommendation is consistent with [guidance from the U.S. Department of State.](#)

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 are 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 state and local public health departments and/or HHS's Incident Management Team (IMT) 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 have their quarantine order lifted and are free to return home.
- Almost all people from the Wuhan flights who were quarantined have fulfilled their 14-day quarantine period and have been released.

Diamond Princess:

- CDC supported 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.
 - Due to the dynamic nature of the ongoing outbreak, the US government recommended that US citizens disembark and return to the United States.
- On February 16, 329 American citizens returned by flights chartered by the State Department.
 - The planes were met by a team of U.S. government personnel deployed at the bases to assess the health of the passengers.
 - The passengers were screened before leaving the ship and were monitored and evaluated by medical and public health personnel during the trip and after arrival. They

will continue to be monitored [by medical and public health personnel](#) throughout the 14-day quarantine period.

- Americans returned by flights chartered by the State Department are subject to a 14-day federal quarantine and are housed at two existing federal quarantine sites for repatriated travelers:
 - Travis Air Force Base in California
 - Joint Base San Antonio-Lackland in Texas
- [No US citizens remain on the Diamond Princess.](#)
- More than [50](#) Americans who were on board the *Diamond Princess* remain in Japan, hospitalized with COVID-19, including some who are reportedly severely ill.
- 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.
- 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.
 - On February 29, the U.S. government announced it was suspending entry of foreign nationals who have been in Iran within the past 14 days.
 - [CDC has issued the following travel guidance related to COVID-19:](#)
 - [China — Level 3, Avoid Nonessential Travel](#) — updated February 22;
 - [Hong Kong — Level 1, Practice Usual Precautions](#) — issued February 19;
 - [Iran — Level 3, Avoid Nonessential Travel](#) — updated February 28;
 - [Italy — Level 3, Avoid Nonessential Travel](#) — updated February 28;
 - [Japan — Level 2, Practice Enhanced Precautions](#) — updated February 22;

- [South Korea — Level 3, Avoid Nonessential Travel](#) — updated February 24.
- CDC also recommends that [all travelers reconsider cruise ship voyages into or within Asia at this time.](#)
- CDC is issuing [clinical guidance](#), including:
 - 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.
 - [On February 27, CDC updated its criteria to guide evaluation of persons under investigation for COVID-19.](#)
 - [On February 28, CDC issued a Health Alert Network \(HAN\): Update and Interim Guidance on Outbreak of COVID-19.](#)
- CDC has deployed multidisciplinary teams to support state health departments with clinical management, contact tracing, and communications.
- CDC has helped mobilize state health departments to receive returned repatriated travelers.
 - Through the Public Health Emergency Preparedness (PHEP) cooperative agreement, 62 state PHEP programs across the country are part of the multi-agency infrastructure working on quarantine, isolation, case finding, protecting health care workers and assuring medical supply chains.
 - State PHEP programs stand ready to address future developments in the outbreak.
- 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.
- [An important part of CDC's role during a public health emergency is to develop a test for the pathogen and equip state and local public health labs with testing capacity.](#)
 - [After distribution of a CDC rRT-PCR test to diagnose COVID-19 to state and local public health labs started, performance issues were identified related to a problem in the manufacturing of one of the reagents. Laboratories were not able to verify the test performance.](#)
 - CDC worked on two potential resolutions to this problem.
 - [CDC developed a new protocol that uses two of the three components of the original CDC test kit to detect the virus that causes COVID-19 after establishing that the third component, which was the problem with the original test, can be excluded from testing without affecting accuracy.](#)
 - [CDC is working with FDA to amend the existing Emergency Use Authorization \(EUA\) for the test, but in the meantime, FDA granted discretionary authority for the use of the original test kits.](#)
 - [Further, newly manufactured kits have been provided to the International Reagent Resource for distribution.](#)
 - [On February 27, CDC distributed new test kits to 7 laboratories to serve as evaluation sites to ensure health departments are able to verify the](#)

assay. On February 29, 6 of 7 pilot laboratories reported successful completion of the verification panel.

- An additional 40 test kits were hand carried to IRR for repackaging and distribution to additional public health labs.
- On February 28, IRR began to distribute new test kits to the additional 40 laboratories.
- Combined with other reagents that CDC has procured, there are enough testing kits to test more than 75,000 people.
- In addition, CDC has two laboratories conducting testing for the virus that causes COVID-19. CDC can test approximately 350 specimens per day.
- 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). and has been involved in the program since 2004.
 - More than 800 FETP-trained residents or graduates of FETP are supporting ongoing COVID-19 response efforts.
 - In 2019 specialized FETP training tracks were established in non-communicable diseases and tuberculosis.
- 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.
 - For country-specific information, please contact CDGlobal@cdc.gov.

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.
 - If you are a resident in a community where person-to-person spread of COVID-19 has been detected and you develop COVID-19 symptoms, call your healthcare provider and tell them about your symptoms.

- For people who are ill with COVID-19, but are not sick enough to be hospitalized, please follow CDC guidance on how to reduce the risk of spreading your illness to others. People who are mildly ill with COVID-19 are able to isolate at home during their illness.

Recent Travelers to [Geographic Areas with Sustained Spread](#):

- If you were in [geographic areas with sustained spread \(China, Iran, Italy, Japan, or South Korea\)](#) 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.
 - [Clean your hands often by washing them with soap and water for at least 20 seconds or using an alcohol-based hand sanitizer that contains at least 60% alcohol immediately after coughing, sneezing or blowing your nose. Soap and water should be used if hands are visibly dirty.](#)

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 27](#), CDC [updated](#) 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 [an affected area with sustained transmission](#) 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.

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 affected geographic areas (i.e., countries with CDC Travel Health Notices at warning levels 2 or 3) within 14 days of symptom onset
Fever and signs/symptoms of acute lower respiratory illness (e.g., pneumonia , ARDS) requiring hospitalization and without alternative explanatory diagnosis (e.g., influenza)	AND	No source of exposure has been identified

Note: The criteria are intended to serve as guidance for evaluation. In consultation with public health departments, patients should be evaluated on a case-by-case basis to determine the need for testing. Testing may be considered for deceased persons who would otherwise meet the PUI criteria. The above criteria are available on the [Interim Guidance for Healthcare Professionals web page](#).

- In addition to the above criteria, infants born to mothers with confirmed COVID-19 should be considered PUIs. As such, infants should be isolated according to the [Infection Prevention and Control Guidance for PUIs](#).

Recommendations for Reporting, Testing, and Specimen Collection:

- Clinicians should immediately implement recommended [infection prevention and control practices](#) if a patient is suspected of having COVID-19. They should also notify infection control personnel at their healthcare facility and their state or local health department if a patient is classified as a PUI for COVID-19.
- State health departments that have identified a PUI or a laboratory-confirmed case should complete a [PUI and Case Report form](#) through the processes identified on CDC's Coronavirus Disease 2019 website.
- State and local health departments can contact CDC's Emergency Operations Center (EOC) at 770-488-7100 for assistance with obtaining, storing, and shipping appropriate specimens to CDC for testing, including after hours or on weekends or holidays.
- Currently, diagnostic testing for COVID-19 is being performed at state public health laboratories and CDC. Testing for other respiratory pathogens should not delay specimen testing for COVID-19.

- For initial diagnostic testing for SARS-CoV-2, CDC recommends collecting and testing upper respiratory tract specimens (nasopharyngeal AND oropharyngeal swabs). CDC also recommends testing lower respiratory tract specimens, if available.
- For patients who develop a productive cough, sputum should be collected and tested for SARS-CoV-2. The induction of sputum is not recommended.
- For patients for whom it is clinically indicated (e.g., those receiving invasive mechanical ventilation), a lower respiratory tract aspirate or bronchoalveolar lavage sample should be collected and tested as a lower respiratory tract specimen.
- Specimens should be collected as soon as possible once a PUI is identified, regardless of the time of symptom onset. See [Interim Guidelines for Collecting, Handling, and Testing Clinical Specimens from Patients Under Investigation \(PUIs\) for COVID-19](#) and [Biosafety FAQs](#) for handling and processing specimens from suspected cases and PUIs.
- 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.
- 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.

COMMUNITY BASED INTERVENTIONS (AKA COMMUNITY MITIGATION)

- The current risk to Americans for COVID-19 is low, but Americans should be prepared for the possibility of a COVID-19 outbreak in their community. Everyone has a role to play.
- Currently a vaccine is not available for COVID-19. Until a vaccine is developed, community-based interventions, such as school dismissals, event cancellations, social distancing, plans to work remotely can help slow the spread of coronavirus.
- Your local public health department and community partners have been preparing for an event, like COVID-19 and have plans in place. Now is a good time for businesses, community and faith-based organizations, schools, and health-care systems to reexamine their preparedness plans to make sure they are ready.
- Strong community partnerships between local health departments, the health care sector, faith-based organizations, and other community partners are vital for this response, and will be necessary to prepare for and coordinate if an outbreak occurs.
- Community-based interventions can be grouped in three categories:
 - Personal protective measures (e.g., voluntary home isolation of ill persons, voluntary home quarantine of exposed household members, covering nose/mouth when coughing or sneezing, hand hygiene, using face masks in community settings when ill)
 - Community measures aimed at increasing social distancing (e.g., school dismissals, social distancing in workplaces, postponing or cancelling mass gatherings)
 - Environmental measures (e.g., routine cleaning of frequently touched surfaces)

CDC'S Approach to Community-Based Interventions

- The federal guidance provided by CDC is intentionally broad to allow flexibility for states and local health governments to tailor guidance to their circumstances. An intervention/ approach that is appropriate for one community with local transmission won't necessarily be appropriate for another community with no local transmission.
- Local health departments should evaluate and adapt CDC guidelines and recommendations based on local conditions and with input from community partners.
- The community can take measures to reduce the spread of the COVID-19. CDC recommends working with the local health department and community partners to determine options that make the most sense. Potential measures include dismissal of students from school and closure of childcare facilities, social distancing of adults in the community and workplace, which may include cancellation of large public (or mass) gatherings and encouraging teleworking and alternate work schedules to decrease social density.

Household/Personal Protective Measures

- Everyone can do their part to help plan for, prepare, and respond to this emerging public health threat.
- Handwashing with soap and water is one of the best ways to protect against the virus.
- Creating a household emergency plan can help protect your health and the health of those you care about.
- CDC recommends that individuals/households create an emergency plan of action, practice good personal health habits and plan for home-based care (if needed), be prepared for your child's school or childcare facility to be temporarily dismissed, and plan for changes at your workplace.
- During an outbreak in your community, stay home when you are sick with COVID-19 symptoms, keep away from others who are sick, and limit face-to-face contact with others.

Community Measures

- Mass gatherings:
 - Mass gatherings and events, such as concerts, festivals, conferences, worship services, and sporting events, increase the chance of a virus, like COVID-19, to spread and infect people crowded together within a close proximity.
 - You may need to modify, postpone, or cancel your event. CDC recommends working with the emergency operations coordinator or planning team at your venue and staying informed about the local COVID-19 situation in your area.
 - CDC is in the process of creating a planning guide to help event organizers and staff plan and prevent the introduction of COVID-19 into their mass gathering or event.
- Community and faith-based organizations:
 - Local leaders and community organizers play a vital role to bring the community together to help plan for and reduce the impact of a potential COVID-19 outbreak. Since you know your community members the best, you can ensure groups most vulnerable to COVID-19 are considered and included in the planning process.

- CDC recommends finding out if your local government has a private-public emergency planning group that meets regularly that you can join. If not, suggest one that should be set up. Building strong alliances before a pandemic can help provide your organization with the support and resources needed.
- CDC is in the process of a planning guide to help you create an emergency plan for your community and faith-based organization.
- Administrators of U.S. childcare programs and K-12 schools:
 - Schools should plan for and prepare for a potential community-level outbreak of COVID-19. Fortunately, many of the steps to plan and prepare for COVID-19 are the same steps schools take to keep students healthy and safe from the flu.
 - CDC recommends childcare and K-12 school officials:
 - Collaborate with local health departments and partners to review, update, and implement emergency operations plans.
 - Develop information-sharing systems with partners that can be used for day-to-day reporting and disease surveillance to identify unusual rates of absenteeism.
 - Review attendance and sick leave policies; encourage students and staff to stay home when sick and establish procedures to ensure student and staff who become sick at school or arrive at school sick are sent home as soon as possible.
 - Perform routine environmental cleaning.
 - Create communications plans for use with the school community.
 - The decision to dismiss a school should be made locally. CDC recommends working with local health officials to determine if, when, and for how long schools may need to be dismissed in the event of an outbreak. (NOTE: DOE does not recommend using “school closure” terminology.)
 - School administrators should plan to provide critical support services, such as continuity of education and continuity of school meal programs, if schools are dismissed.
 - CDC has created interim guidance for administrators of U.S. childcare programs and K-12 schools to help plan, prepare, and respond to COVID-19.

HAND HYGIENE IN COMMUNITY SETTINGS (ENVIRONMENTAL MEASURES)

- Handwashing is one of the best ways to protect yourself and your family from getting sick.
- Clean hands can stop germs from spreading from one person to another and throughout an entire community—from your home and workplace to childcare facilities.
- Wash your hands often with soap and water for at least 20 seconds, especially after blowing your nose, coughing, or sneezing; going to the bathroom; and before eating or preparing food.
- 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.
- Follow these steps to make sure you wash your hands properly:

1. Wet your hands with clean, running water (warm or cold), turn off the tap, and apply soap.
2. Lather your hands by rubbing them together with the soap. Lather the backs of your hands, between your fingers, and under your nails.
3. Scrub your hands for at least 20 seconds. Need a timer? Hum the “Happy Birthday” song from beginning to end twice.
4. Rinse your hands well under clean, running water.
5. Dry your hands using a clean towel or air dry them.

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 COVID-19 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 COVID-19 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 isolate 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, the virus that causes COVID-19.
- 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 healthcare personnel 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.
- CDC is preparing first responders, healthcare providers, and health systems, by:
 - Establishing visibility across healthcare systems to understand healthcare use, particularly surges in demand for medical care and associated resources.
 - Conducting extensive outreach to clinical and hospital professional organizations to ensure health system preparedness.
 - Producing guidance documents on infection control, hospital clinical evaluation and patient management.
 - Working closely with healthcare facilities and providers to reinforce infection control principles that recognize PPE is one component of a larger set of practices that help to limit the spread of disease.
 - Developing a range of respirator conservation strategies, including strategies to make supplies last longer (such as using alternative products like reusable respirators) and extending the use of disposable respirators.
 - Leveraging existing telehealth tools to direct people to the right level of care.
 - Working with supply chain partners to understand supply usage, what products are available, and when more aggressive measures may need to be taken to ensure that HCPs at highest risk have access to PPE.
 - Sharing information with stakeholders to help them recognize when to shift the strategies they are using.
- Healthcare personnel (HCP) often have prolonged close contact with patients in healthcare settings and may come in contact with a person infected with COVID-19. HCPs can protect themselves by properly following recommended infection control practices, including the appropriate use of PPE when caring for patients with COVID-19.
- CDC recommends evaluating asymptomatic HCPs with close contact or a potential exposure to COVID-19 by assessing risk, monitoring symptoms, and determining appropriate work restrictions.

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 CDC's 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.
- Employers can use strategies now to prevent workplace exposures to acute respiratory illness:

- 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.