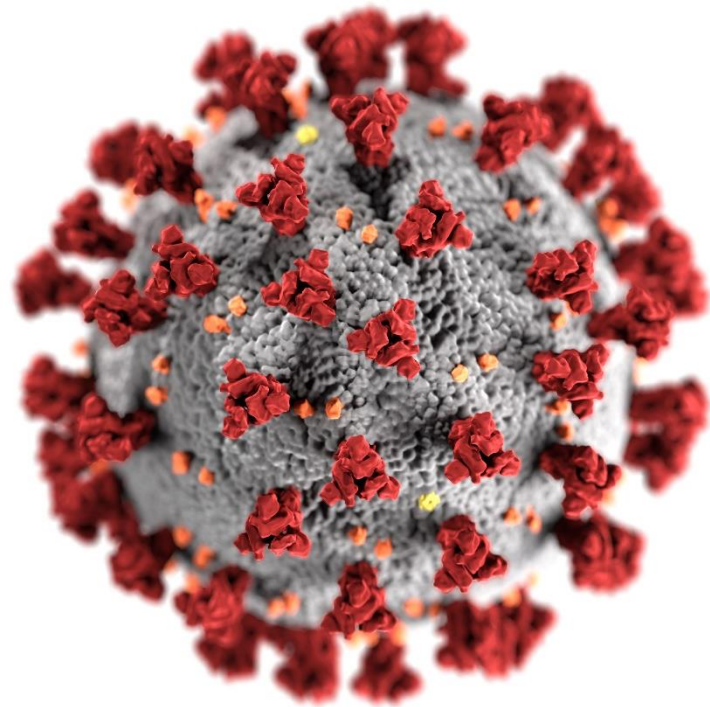


COVID-19 Update

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cdc.gov/coronavirus

Overview

- Introduction
- Spread, Symptoms, & Complications
- Testing, Tracing & Treatment
- Prevention
- Respirators and Face Masks
- What to do if Sick
- Daily Life
- People who Need to Take Extra Precautions
- What is CDC Doing

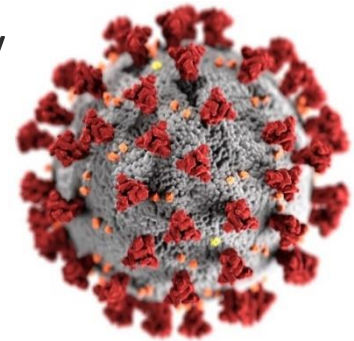


Introduction



Emergence

- Identified in Wuhan, China in December 2019
- Caused by the virus SARS-CoV-2
- Linked to a large seafood and live animal market initially
- Spread person-to-person later without a linkage to animal exposure
- Associated with travel and first U.S. case reported January 21, 2020



About the name

- February 11, 2020 WHO [announced](#) an official name for the disease
- New name of this disease is coronavirus disease 2019 (COVID-19)
 - CO stands for corona
 - VI for virus
 - D for disease
 - 19 is from 2019



Coronaviruses

- Human coronaviruses
 - Four types commonly cause mild upper-respiratory tract illnesses
- Coronaviruses are a large family of viruses that are common in people and many animals, including camels, cattle, cats, and bats.
- Rarely, animal coronaviruses can infect people and then spread between people
- COVID-19 is a new disease, caused by a novel (or new) coronavirus that had not previously been seen in humans



Spread, Symptoms, & Complications



How it spreads

- The virus is thought to spread mainly from person to person
 - Through respiratory droplets produced when an infected person coughs, sneezes, or talks
 - Between people who are in close contact with one another (within about 6 feet)
- These droplets can cause infection when inhaled into the nose, mouth, airways, and lungs
- This is thought to be the main way the virus spreads
- COVID-19 might be spread by people who are not showing symptoms



How it spreads (con't)

- The virus that causes COVID-19 is spreading very easily and sustainably between people
- Information from the ongoing COVID-19 pandemic suggests that this virus is spreading more efficiently than influenza, but not as efficiently as measles, which is highly contagious
- The virus might be spread in other ways
 - It might be possible for a person to get COVID-19 by touching a surface or object that has the virus on it, then touching their own mouth, nose, or possibly their eyes.
 - Under certain circumstances (e.g., in enclosed spaces with poor ventilation), COVID-19 can sometimes be spread by airborne transmission.
 - This is not thought to be the main way the virus spreads, but we are still learning more about how this virus spreads.



Symptoms

Symptoms might include

- Fever or chills
- Cough
- Shortness of breath or difficulty breathing
- Fatigue
- Muscle or body aches
- Headache
- New loss of taste or smell
- Sore throat
- Congestion or runny nose
- Nausea or vomiting
- Diarrhea

Symptoms may appear

- 2 to 14 days after exposure to the virus



Symptoms (con't)

When to Seek Emergency Medical Attention

- Look for emergency warning signs* for COVID-19. If someone is showing any of these signs, seek emergency medical care immediately
 - Trouble breathing
 - Persistent pain or pressure in the chest
 - New confusion
 - Inability to wake or stay awake
 - Bluish, grayish or yellowish lips, tongue or face, depending on skin tone
- *This list is not all possible signs or symptoms. Please call your medical provider for any other symptoms that are severe or concerning to you
- Call 911 or call ahead to your local emergency facility: Notify the operator that you are seeking care for someone who has or may have COVID-19



Complications

Wide range of illness severity has been reported

- Mild to severe illness
- Can result in death

Most common complications of severe COVID-19

- Pneumonia
- Respiratory failure
- Sepsis and septic shock
- Cardiomyopathy
- Acute kidney injury
- Other illness associated with prolonged hospital stays



Testing, Tracing & Treatment



Testing

- Two kinds of tests are available for COVID-19: [viral tests](#) and [antibody tests](#)
 - A viral test tells you if you have a current infection
 - An antibody test tells you if you had a previous infection
 - Having antibodies to the virus that causes COVID-19 might provide protection from getting infected with the virus again
 - If it does, we do not know how much protection the antibodies might provide or how long this protection might last



CDC testing kit

Testing (con't)

- Not everyone needs to be tested for COVID-19
 - Most people have [mild illness](#) and are able to [recover at home](#) without medical care
 - CDC has [guidance](#) for who should be tested, but decisions about testing are made by [state](#) and [local](#) health departments or healthcare providers
- The [Coronavirus Self-Checker](#) help individuals make decisions on when to seek testing and medical care
- If you have symptoms of COVID-19 and want to get tested, call your healthcare provider first
- If you have symptoms of COVID-19 and are not tested, it is important to stay home



Viral testing of workers without symptoms may be useful to detect COVID-19 early and stop transmission quickly

- Approaches may include
 - initial testing of all workers before entering a workplace,
 - testing of workers at regular intervals, or
 - targeted testing of new workers or those returning from a prolonged absence such as medical leave or furlough, or some combination of approaches.
- Several factors may be helpful in determining the interval for periodic testing, including availability of testing, results of previous testing, and level of community transmission.



Evaluating test results

- Performance characteristics (e.g., sensitivity, specificity) and the
- [Instructions](#) for use of the FDA-authorized assay
- Prevalence of SARS-CoV-2 infection in that particular [community](#) (e.g., positivity rate over the previous 7–10 days or the rate of cases in the community)
- Clinical and epidemiological context of the person who has been tested



Employees undergoing testing should receive clear information on:

- The manufacturer and name of the test, the type of test, the purpose of the test, the reliability of the test, any limitations associated with the test, who will pay for the test, and how the test will be performed, and
- How to understand what the results mean, actions associated with negative or positive results, who will receive the results, how the results may be used, and any consequences for declining to be tested.
- Individuals tested are required to receive patient fact sheets as part of the test's [emergency use authorization](#)



Key public health actions for COVID-19

- Case investigation and contact tracing are essential interventions in a successful, multipronged response to COVID-19
- All confirmed (symptomatic and asymptomatic) and probable COVID-19 patients should receive follow-up to prevent further spread of the virus
- Prompt identification and isolation of patients and quarantine of contacts can help break the chain of disease transmission



Roles and responsibilities in workplace case investigation and contact tracing

- When a COVID-19 case is identified that impacts a workplace, the health department may:
 - A. Ask the employer for help in understanding the risk for transmission in the workplace and identifying exposures and contacts in the workplace; or
 - B. Rely on the employer to identify workplace contacts; or
 - C. Conduct workplace contact tracing without directly engaging the employer



Treatment

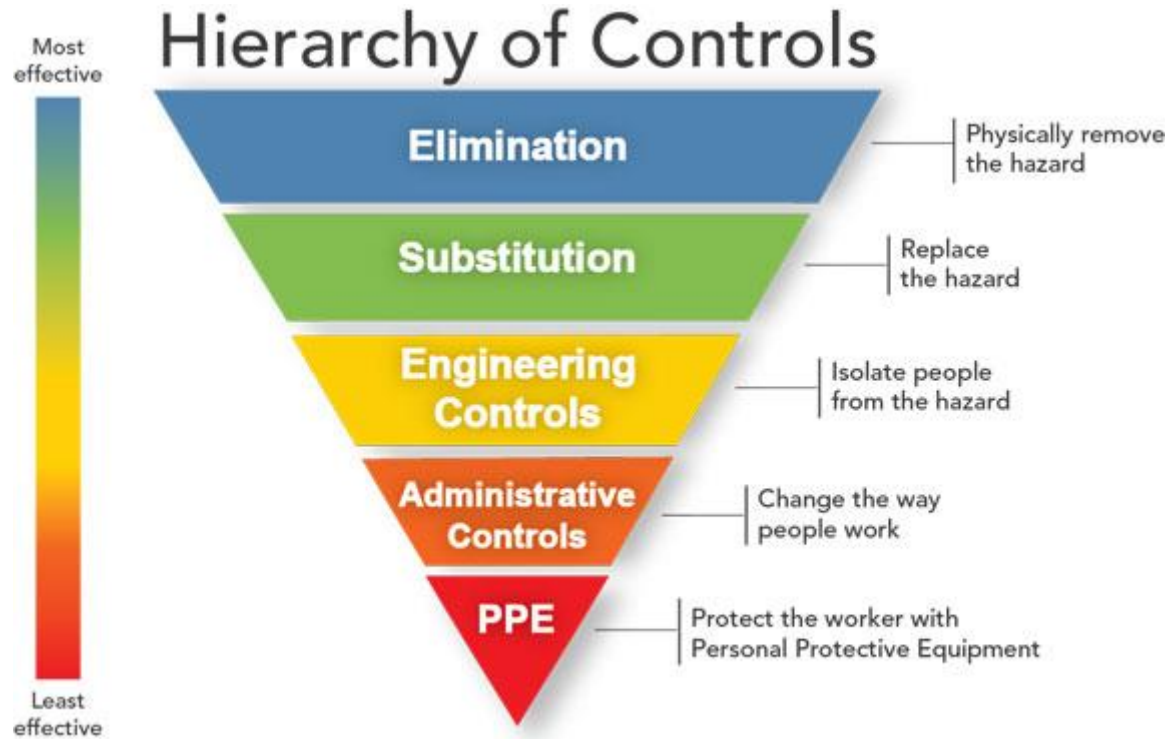
- Supportive care to
 - Relieve symptoms
 - Manage pneumonia and respiratory failure
- Medication to slow the virus
 - Remdesivir, an antiviral medication, reduces the ability of the virus to multiply and spread through the body
- Medication to reduce an overactive immune response
 - Dexamethasone, a steroid, or a similar medication, is recommended for patients who need supplemental oxygen
- Medications to help the immune system recognize and respond more effectively to the virus
 - [Bamlanivimab and casirivimab plus imdevimab](#) are investigational monoclonal antibodies, available under FDA EUAs for patients at high risk of disease progression and severe illness



Prevention



Implement multiple complementary controls to effectively control the hazard



Preventing and slowing the spread of COVID-19 within the workplace

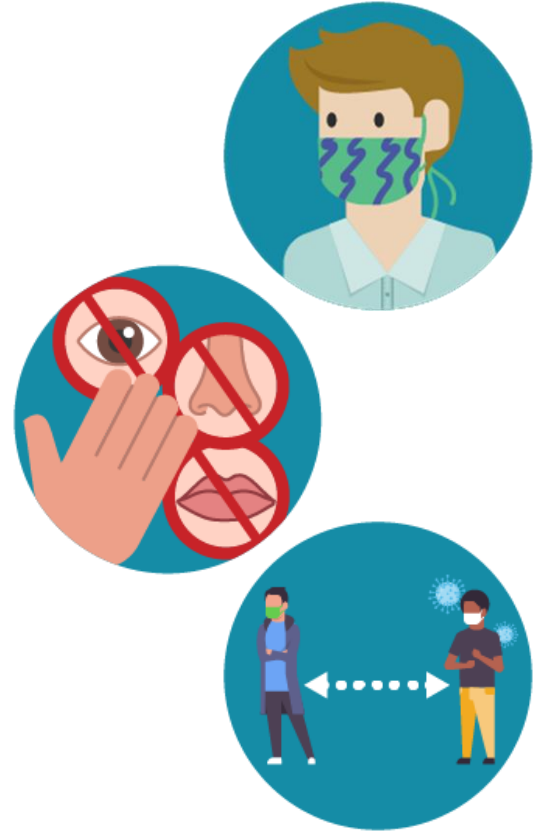
- **Employers can take the following action steps to prepare for possible cases in the workplace:**
 - Establish a COVID-19 coordinator or team.
 - Create and implement a preparedness, response, and control plan
 - Collect information about the workplace
 - Support employees and conduct workplace hazard evaluation and prevention activities.
 - Communicate with employees.



Prevention

Everyday preventive actions

- When in public, wear a mask that covers your mouth and nose
- Avoid close contact with others, including people who are sick
- Avoid touching your eyes, nose, and mouth with unwashed hands
- Stay home as much as possible, especially when you are sick



Prevention (con't)

- Cover your cough or sneeze with a tissue, then throw it away
- Clean and disinfect frequently touched objects and surfaces
- Wash your hands often with soap and water for at least 20 seconds
- Use an alcohol-based hand sanitizer with at least 60% alcohol if soap and water are not readily available
 - When using an alcohol-based hand sanitizer, rub the gel over all the surfaces of hands and fingers until hands are dry.
 - Do not rinse or wipe off the sanitizer before it's dry, use alcohol-based hand sanitizer to clean surfaces, or store alcohol-based hand sanitizer above 105°F.



Social distancing

- Also called “physical distancing”
- Since people can spread the virus before they know they are sick or have symptoms, it is important to stay away from others when possible
- Keep space between yourself and others outside of your home
- To practice social distancing
 - Stay at least 6 feet (about 2 arm lengths) from other people
 - Do not gather in groups
 - Stay out of crowded places and avoid mass gatherings



Respirators and Face Masks



Summary for healthcare facilities: Strategies for optimizing the supply of PPE during shortages

Conventional Capacity

strategies that should already be in place as part of general infection prevention and control plans in healthcare settings

Contingency Capacity

strategies that can be used during periods of anticipated PPE shortages

Crisis Capacity*

strategies that can be used when supplies cannot meet the facility's current or anticipated PPE utilization rate

*Not commensurate with U.S. standards of care



Decisions to implement contingency and crisis strategies are based on these assumptions:

- Facilities understand their current PPE inventory and supply chain
- Facilities understand their PPE utilization rate
- Facilities are in communication with local healthcare coalitions and federal, state, and local public health partners (e.g., public health emergency preparedness and response staff) to identify additional supplies
- Facilities have already implemented conventional capacity measures
- Facilities have provided HCP with required education and training, including having them demonstrate competency with donning and doffing, with any PPE ensemble that is used to perform job responsibilities, such as provision of patient care



Masks

- Reduce the spread of COVID-19 to others and protect the wearer
- Are most likely to reduce the spread of COVID-19 when widely used by people in public settings



Cloth Face Covering Do's & Don'ts:

DO:

- ✓ Make sure you can breathe through it
- ✓ Wear it whenever going out in public
- ✓ Make sure it covers your nose and mouth
- ✓ Wash after using

DON'T:

- ✗ Use on children under age 2
- ✗ Use surgical masks or other personal protective equipment (PPE) intended for healthcare workers

 cdc.gov/coronavirus

Masks

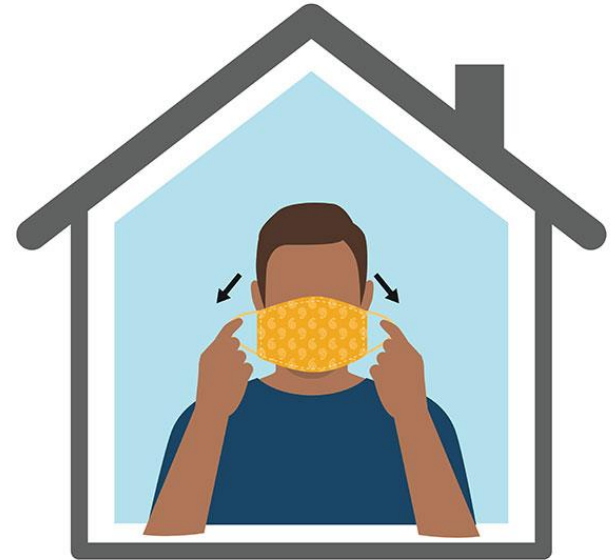
- Wear masks in public settings and when around people who don't live in your household, especially when other [social distancing](#) measures are difficult to maintain
- Do not place masks on
 - children under the age of 2 or
 - anyone who has trouble breathing, is unconscious, incapacitated, or otherwise unable to remove the mask without assistance



Masks (con't)

■ How to wear and remove

- Wash your hands before putting on face covering
 - Put it over your nose and mouth and secure it under your chin
 - Try to fit it snugly against the sides of your face
 - Make sure you can breathe easily
 - When you're home, carefully untie strings behind your head or stretch the ear loops
 - Handle only by the ear loops or ties
 - Be careful not to touch your eyes, nose, and mouth when removing
- Wash hands immediately after removing



What to do if Sick



What to do if you are sick

- Stay home except to get medical care
- Separate yourself from other people
- Monitor your symptoms
- Call ahead before visiting your doctor
- If you are sick, wear a mask over your nose and mouth
- Cover your coughs and sneezes
- Clean your hands often
- Avoid sharing personal household items
- Clean all "high-touch" surfaces everyday



When you can be around others after you had or likely had COVID-19

When you can be around others (end home isolation) depends on different factors for different situations

- **I think or know I had COVID-19, and I had symptoms**
 - You can be with others after
 - At least 10 days since symptoms first appeared and
 - At least 24 hours with no fever without fever-reducing medication and
 - Symptoms have improved
- **I tested positive for COVID-19 but had no symptoms**
 - If you continue to have no symptoms, you can be with others after
 - 10 days have passed since test



Protect your home from COVID-19

- If one person in your household gets COVID-19, it can spread to others in your home
- If your household includes anyone more likely to get very sick from COVID-19, then all household members should act as if they are more likely to get very sick
- Consider wearing masks in shared spaces around others in your home
- In shared spaces, stay about 6 feet apart, wash your hands often, and monitor your health daily



Daily Life



Deciding to Go Out

- The risk of an activity depends on many factors, such as
 - Is COVID-19 spreading in your community?
 - Will you have a potential close contact with someone who is sick or anyone who is not wearing a mask and may be asymptomatic?
 - A [close-contact](#) is defined as "Someone who was within 6 feet of an infected person for a cumulative total of 15 minutes or more over a 24-hour period* starting from 2 days before illness onset (or, for asymptomatic patients, 2 days prior to test specimen collection) until the time the patient is isolated."
 - Are you at increased risk of severe illness?
 - Do you take everyday actions to protect yourself from COVID-19?



Deciding to Go Out

- In general, the more closely you interact with others and the longer that interaction, the higher the risk of COVID-19 spread. So, think about
 - How many *people* will you interact with?
 - Can you keep 6 feet of *space* between you and others?
 - Will you be outdoors or indoors?
 - What's the length of *time* that you will be interacting with people?



Deciding to Go Out

- **Activities are safer if**
 - You can maintain at least 6 feet of space between you and others
 - They are held in outdoor spaces. Indoor spaces with less ventilation, where it might be harder to keep people apart, are riskier
 - People are wearing masks. Interacting without wearing masks also increases your risk



Daily Activities and Going Out

Specific venues which may be of interest include

- [School](#)
- [Work](#)
- [Bars and Clubs](#)
- [Doctor Visits](#)
- [Gyms or Fitness Centers](#)
- [Restaurants](#)

Stress and coping

The outbreak may be stressful and cause strong emotions in adults and children.

- Take breaks from watching, reading, or listening to news stories, including social media
- Take care of your body
- Make time to unwind. Try to do activities you enjoy
- Connect with others. Talk with people you trust about concerns and how you are feeling



Stress and coping (con't)

Need help? Know someone who does?

- If you, or someone you care about, are feeling overwhelmed with emotions like sadness, depression, or anxiety, or feel like you want to harm yourself or others
 - Call 911
 - Visit the [Disaster Distress Helpline](#), call 1-800-985-5990, or text TalkWithUs to 66746
 - Visit the [National Domestic Violence Hotline](#) or call 1-800-799-7233 and TTY 1-800-787-3224



Animals and pets

- A small number of pets worldwide, including cats and dogs, have been reported to be infected with the virus that causes COVID-19, mostly after close contact with people with COVID-19
- Based on the limited information available to date, the risk of animals spreading COVID-19 to people is considered to be low
- Treat pets as you would other human family members – do not let pets interact with people outside the household
- If a person inside the household becomes sick, isolate that person from everyone else, including pets



Animals and pets (con't)

What to do if you have pets

- Limit pets' interaction with people outside your household
- Keep cats indoors when possible
- Walk dogs on a leash at least 6 feet (2 meters) away from others
- Avoid public places where a large number of people gather
- Do not put face coverings on pets. Covering a pet's face could harm them
- If a person inside the household becomes sick, isolate that person from everyone else, including pets
- Talk to your veterinarian if your pet gets sick or if you have any concerns about your pet's health



People Who Need Extra Precautions



People at increased risk for severe illness

- Among adults, risk for severe illness increases with age
 - Severe illness means that the person with COVID-19 may require hospitalization, intensive care, or a ventilator to help them breathe, or they may even die
 - Older adults are at highest risk. Increased risk with age is due in part to the increased likelihood of [older adults](#) having underlying medical conditions
- People of any age who have certain underlying [medical conditions](#), such as diabetes and obesity, are at higher risk of severe illness

People who need extra precautions

- People at increased risk of severe illness from COVID-19, and those who live with them, need to take steps to protect themselves from getting COVID-19
- The best way to protect yourself and to help reduce the spread of the virus that causes COVID-19 is to
 - Limit your interactions with other people as much as possible
 - Take precautions to prevent getting COVID-19 when you do interact with others
- If you start feeling sick and think you may have COVID-19, get in touch with your healthcare provider within 24-hours

If you are at higher risk of severe illness

- In general, the more people you interact with, the more closely you interact with them, and the longer that interaction, the higher your risk of getting and spreading COVID-19
- If you decide to engage in public activities, continue to protect yourself by practicing everyday preventive actions
- Keep these items on hand and use them when venturing out: a mask, tissues, and a hand sanitizer with at least 60% alcohol, if possible



What is CDC Doing



What is CDC doing

- **Preparing first responders, healthcare providers, and health systems**
 - New nationwide [COVID Response Corps](#) to help communities address surge staffing needs through innovative hiring mechanisms
- **Advising businesses, communities, and schools**
- **Performing tests, researching the virus, and providing resources to laboratories**
 - CDC performs viral and antibody tests and grows the virus in cell culture to support research efforts. CDC also develops laboratory tests and provides guidance on testing, biosafety, and reporting



What is CDC doing (con't)

- **Providing comprehensive surveillance data**
 - Routinely report data on maps and cases, deaths, testing, forecasting, trends, school closures, human mobility, and more on the [CDC COVID-19 Data Tracker](#)
- **Supporting critical work by providing guidance**
 - Published guidance information for infection control, long-term care and nursing homes, correctional and detention facilities, schools and workplaces, homeless population, tribal communities and more



Safely administering vaccines

Promoting productive workplaces
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Special Topics: COVID-19 Information for Workers

Safely Administering Vaccines: Resources for Healthcare Workers

CDC/NIOSH

- [Preventing needlesticks and sharps injuries](#)
- [NORA stop sticks campaign](#)
- [Preventing needlesticks in healthcare settings \(also available in Spanish\)](#)
- [What every worker should know: How to protect yourself from needlestick injuries \(also available in Spanish\)](#)
- [Ensuring the proper PPE when administering COVID-19 vaccine](#)

OSHA

- [Bloodborne pathogens and needlestick prevention](#) 



COVID-19 variants

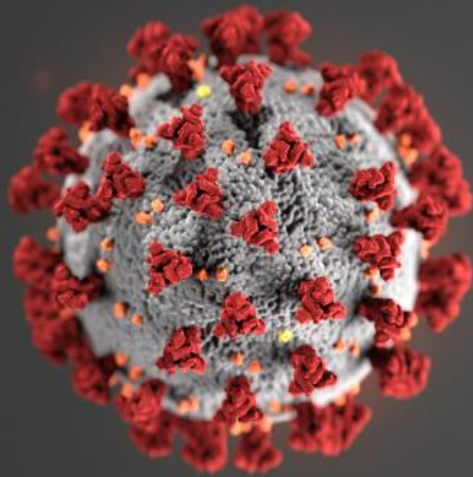
- Viruses constantly change through mutation
- New variants of a virus are expected to occur over time
- Multiple COVID-19 variants are circulating globally
- CDC is studying these variants to understand whether the variants
 - Spread more easily from person to person
 - Cause milder or more severe disease in people
 - Are detected by currently available viral tests
 - Respond to medicines currently being used to treat people for COVID-19



The science agenda for COVID-19 is organized around a framework of six priority areas

- Priority Area I. COVID-19 disease detection, burden, and impact
- Priority Area II. Transmission of SARS-CoV-2
- Priority Area III. Natural history of SARS-CoV-2 infection
- Priority Area IV. Protection in healthcare and non-healthcare work settings
- Priority Area V. Prevention, mitigation, and intervention strategies
- Priority Area VI. Social, behavioral, and communication science





For more information, contact CDC
1-800-CDC-INFO (232-4636)
TTY: 1-888-232-6348 www.cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

