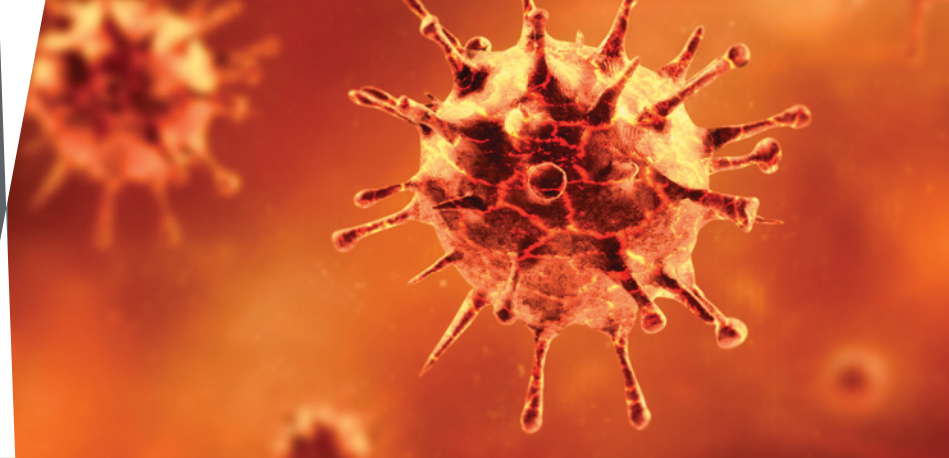


# Workplace Risk Management and Response Plans to COVID-19

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## Overview

This document is intended to provide businesses and leaders across occupational sectors with an understanding of universal recommendations and guidelines pertaining to risk management for COVID-19. By compiling and sharing these recommendations, we hope to promote self-efficacy among business leaders who are currently facing difficult decisions about how to best protect employee health and reduce disruption to their business while responding appropriately to the COVID-19 pandemic. These recommendations and guidelines are supported by, and adapted from, our experience as public health professionals, as well as information provided by the United States Occupational Safety and Health Administration (OSHA), and the U.S. Centers for Disease Control and Prevention (CDC).

### 1. BACKGROUND

In late 2019, several pneumonia cases of unknown origin originated in Wuhan City, Hubei Province, drawing the attention of Chinese authorities and the World Health Organization (WHO). By January 7, 2020, Chinese authorities confirmed that a novel coronavirus, since named SARS-CoV-2, was responsible for these pneumonia cases.

The virus spread rapidly throughout China while the government attempted to contain the spread. By January 24, China had shut down 15 major cities, quarantined millions of citizens, and cancelled national holidays. The virus, primarily affecting older individuals, overwhelmed the healthcare systems and forced businesses and factories to come to a halt. On January 30, the WHO designated SARS-CoV-2 a Public Health Emergency of International Concern. Recognizing the potential for a pandemic, governments across the world began preparing for outbreaks in their own countries.

On February 11, the WHO officially named the disease caused by SARS-CoV-2 "COVID-19", an abbreviation of "Coronavirus Disease – 2019." While there are several human coronaviruses known to cause mild-upper respiratory tract illnesses, SARS-CoV-2 is a novel virus capable of causing severe lower respiratory tract illness, particularly among the elderly and those with pre-existing conditions (e.g., cardiovascular disease) (CDC, 2020).

Local transmission of SARS-CoV-2 in the U.S. was first documented on February 27, when the CDC confirmed that an individual in California with no travel history or link to known cases had been diagnosed with COVID-19. Since then, the CDC, as well as state and local governments have been preparing for the spread of COVID-19 across the United States. Seattle, Washington has been the first major U.S. city to be affected by COVID-19, and the local government has advised all businesses to allow remote work, shut down major events, and advised ill citizens to self-isolate.

#### 1.1 Why is there a concern?

COVID-19 has resulted in unparalleled disruption of daily life in areas affected by community transmission. Within the U.S., public and private laboratories are under pressure to expand diagnostic testing as the virus spreads throughout the country. Businesses must properly prepare for local transmission of SARS-CoV-2 by developing adequate outbreak responses and mitigating plans to combat the negative effects that the COVID-19 pandemic may have on their employees and business operations.

### 2. HAZARD RECOGNITION

As part of any risk management and control plan, regardless of whether the hazard is an infectious disease or another agent, a crucial first step is hazard recognition or hazard characterization. In terms of COVID-19, as part of the initial hazard recognition step, employers need to understand some basic aspects of COVID-19: How the disease is spread; the signs and symptoms; risks of stakeholder exposure; sources of potential exposure; and which area(s) of their workforce is likely to be impacted.

#### 2.1 How does COVID-19 spread?

Similar to other coronaviruses and respiratory viruses, COVID-19 can spread through direct and indirect contact with infected individuals/surfaces. Spread via direct contact (person-to-person) is considered the main form of transmission, and may occur between people who are in close contact (approximately six feet) through respiratory droplets, produced when an infected person coughs or sneezes (CDC, 2020). Common symptoms of COVID-19 are cough, fever, and shortness of breath that typically appear 2-14 days after exposure to someone with COVID-19 (CDC, 2020).

#### 2.2 Can COVID-19 spread from contact with a contaminated surface?

SARS-CoV-2 infection can also occur via indirect contact with contaminated surfaces. Infected individuals may cough or sneeze onto surfaces or into their hands, which they then use to touch nearby surfaces. In addition, there have been initial investigations into whether or not SARS-CoV-2 can spread through feces. However, these investigations are currently inconclusive. Presently, the WHO states that the risk of acquiring COVID-19 from feces of an infected person appears to be low (WHO, 2020).

### 2.3 Are workers at risk of exposure?

According to OSHA, most job sectors within the U.S. have a low risk of exposure to people suffering from COVID-19 (OSHA, 2020). Certain occupations, however, have an increased risk of COVID-19 exposure (see Section 2.4 below). Regardless of whether or not an occupation is considered “high risk”, all employers should take heightened precautions related to localized outbreaks.

### 2.4 Which workers are at an increased risk of exposure?

Certain sectors/individuals are at an increased risk of COVID-19 exposure, including (OSHA, 2020):

- > Healthcare (including pre-hospital and medical transport workers, healthcare providers, clinical laboratory personnel, and support staff);
- > Deathcare (including coroners, medical examiners, and funeral directors);
- > Airline operations;
- > Waste management;
- > Travelers to areas, including parts of China, where the virus is spreading;
- > Cruise ship workers;
- > Border protection; and
- > Those in positions that frequently require international travel or travel to affected areas.

Companies should identify which areas of their business rely upon a workforce that is at risk of being impacted so that adequate control measures can be developed to protect this workforce. Other factors that need to be considered, regardless of industry sector, include facility locations, employee travel, and employee contact with potential cases.

### 2.5 What are potential sources of exposure?

OSHA recommends that employers consider whether or not their workers may encounter someone infected with COVID-19 during the normal course of their duties (OSHA, 2020). Employers should also determine if workers could be exposed to worksites or materials contaminated with the virus. If an employee is suspected of being infected or is confirmed to be, then that employee’s work area should be disinfected to the best of the employer’s ability.

## 3. CONTROL AND PREVENTION

As with any recognized hazard, control measures and responses are designed to control the specific hazard of concern. This control and prevention response follows a well-established and validated methodology commonly referred to as the “hierarchy of controls.” The hierarchy of controls prioritizes controls based on their effectiveness at both controlling exposure to the hazard, and placing the least amount of burden on the worker. From most effective to least effective, the hierarchy of controls includes elimination, substitution, engineering controls, administrative controls, and personal protective equipment (PPE). These hierarchy of controls exist together as part of a risk management strategy, and should be used in a way in which multiple controls are implemented to ensure redundancies in the system.

### 3.1 What are the general recommendations for all businesses/employers?

General guidance regarding protection measures to reduce the spread of COVID-19 is recommended for all workplaces (OSHA, 2020). These general recommendations for all workers include the following:

- > Workers should wash hands frequently with soap and water for at least 20 seconds. In the absence of soap and water, hand sanitizer with at least 65% alcohol should be used. Soiled hands should only be cleaned with soap and water.

- > Workers should avoid touching eyes, nose, and mouth. While many are unaware, individuals normally touch either their eyes, nose, or mouth several times every minute. Unfortunately, these behaviors can increase the likelihood of infection. Workers may unknowingly touch surfaces contaminated with SARS-CoV-2 with their hands, which they then transfer to their eyes, nose, or mouth. From that point, the virus may enter the body.
- > Workers should always follow proper respiratory hygiene. Such practices include covering their mouth when coughing or sneezing, preferably with the inside of their arm or a cloth, and not with their hands. If using a tissue, the worker should dispose of it immediately.
- > If possible, a distance of one meter (three feet) between the worker and anyone coughing or sneezing should be kept. By increasing the distance, the worker is decreasing the risk of inhaling respiratory droplets potentially contaminated with SARS-CoV-2.
- > Workplaces should be kept neat and clean with routinely scheduled cleaning.

### 3.2 Should we allow workers to work from home?

If possible, employers should encourage and allow workers likely to be exposed to COVID-19 at the workplace to work from home (CDC, 2020). This practice includes developing flexible sick leave and remote work policies for all workers. Such a policy can decrease travel and interaction with the public, thereby helping to prevent workers from encountering someone infected with SARS-CoV-2, and thus lowering their risk of exposure.

Employers should also emphasize that workers who are ill with any suspected communicable disease stay home, and not attempt to come to work.

### 3.3 How do we handle suspected cases at work?

Employers should have response procedures in place in the event that one of their workers becomes ill with COVID-19. Employers and workplaces in which workers are likely to be exposed should be prepared to promptly identify and isolate potentially infectious individuals. According to OSHA, such practice is a crucial first step for protecting workers, visitors, and others at the worksite (OSHA, 2020).

OSHA has provided several guidelines that should be followed regarding identifying and isolating suspected individuals (OSHA, 2020):

- > Individuals suspected of having COVID-19 should be immediately isolated somewhere in the workplace. Ideally, the location should be away from other workers, visitors, and customers, so that the safety of other individuals is not compromised.
- > Suspected individuals should be provided masks and encouraged to wear them. Under no circumstance should an individual be forced to wear a mask. Using a mask will help limit the number of aerosolized droplets able to reach another individual or a surface.
- > Suspected COVID-19 infected individuals should be isolated separately from healthy individuals. Since COVID-19 is a respiratory illness, its signs and symptoms may be mistaken for the seasonal flu.
- > Personnel in the isolation areas should be kept to a minimum, and only essential personnel should work in these areas. A decrease in the number of people in the same confined area will decrease the risk of transmission to others.
- > Essential personnel and people in close contact (within six feet) to individuals potentially infected with COVID-19 should use additional engineering, administrative, and PPE control measures.

Workers who suspect they have COVID-19 should seek medical attention immediately. Isolation and communication with medical professionals should occur simultaneously.

### 3.4 Are there specific cleaning procedures we should be following?

At this time, becoming ill with COVID-19 through environmental exposure, such as coming into contact with a contaminated surface, is considered unlikely. However, even though the risk of transmission via environmental exposure is unlikely, OSHA still recommends that decontamination procedures for the workplace be developed and implemented (OSHA, 2020).

While workplaces that are not likely to contain exposures to COVID-19 do not have to implement enhanced decontamination procedures pre-emptively, all workplaces should have a decontamination plan and accompanying supplies in place. Enhanced cleaning procedures should be implemented in addition to routine workplace cleaning procedures. These enhanced procedures could include an increase in cleaning frequency, recordkeeping of cleaning, and cleaning of areas not previously cleaned during routine procedures.

Workplaces in which individuals are suspected or confirmed to be suffering from COVID-19 should implement the already-developed decontamination portion of their response plan. At this point, the employer should have on staff or access to trained workers equipped with appropriate PPE and disinfectants for cleaning and disinfecting surfaces. Disinfectants for COVID-19 should be selected from the updated EPA's List N: Disinfectant for Use Against SARS-CoV-2. Furthermore, PPE should be selected based on the disinfectant and the location of disinfection.

Employers should also provide disposable wipes for employees to use on commonly touched and high trafficked surfaces, enabling surfaces to be wiped down multiple times per day or before each use.

### 3.5 Should workers receive additional training to prepare for COVID-19?

According to OSHA, all workers should be instructed about exposure to SARS-CoV-2, the hazards associated with such exposure, and the appropriate workplace protocols that exist for preventing or reducing the likelihood of exposure (OSHA, 2020). Furthermore, this training should include how to isolate individuals suspected or confirmed with COVID-19, and how to report such cases. Training should be offered during scheduled work times at no cost to employees.

Workers required to wear PPE should receive additional training pertaining to PPE. Specifically, these workers should be instructed as to how to handle, don, doff, dispose of, disinfect, inspect for damage, and maintain PPE. Workers who come into contact with individuals with COVID-19 or other infectious diseases should also receive training in blood borne pathogens.

### 3.6 How do we handle internal reporting?

Companies should ensure that timely and accurate reporting is included in their response plans. In circumstances in which companies utilize multiple facilities/locations and remote workers, reporting response activities, local and regional outbreak data, and worker concerns are important in order to ensure the response is adequate and effective. When dealing with health data, however, Health Insurance Portability and Accountability Act (HIPAA) regulations should always be followed.

## 4 COMMUNICATION

One of the most critical aspects of planning a response plan is to have a robust and intentional but flexible framework for communication to employees. Even in situations in which no confirmed cases exist within a company, communications demonstrating a company's knowledge and concern can build trust and reassurance. When a company does have a

suspected or confirmed case, communication plays an important part in ensuring workers and workplaces are fully prepared to respond safely. A company's communication framework should incorporate several elements, such as the current situation regarding COVID-19, recommended response plans for businesses from OSHA and the CDC, and an efficient and effective way that communications will be disseminated across the entirety of a business (OSHA, 2020).

Furthermore, the communication framework should leverage the overall organization of the business, as well as external organizations. Leveraging the latest technology and common forms of communication should be considered. Communication updates via updated dashboards or via text-messaging, for example, have proven useful for communicating to workers who travel or work remotely.

### 4.1 Business communication structure

Communication platforms accessible to all workers should be developed. These platforms will help unify all messages into a single location so that there is no confusion or stratification of messages among workers. Furthermore, these platforms allow workers to have the latest information regarding the COVID-19 outbreak. Options for two-way communications should be established in order to give employees an ability to ask questions, contact Human Resources, talk to medical personnel, or request a cleaning. In addition to communication platforms for workers, employers should also consider developing communication platforms for vendors, contractors, suppliers, customers, and visitors as well. Such a practice allows all third parties to be up-to-date with the latest development in a company's response plan, thereby reducing confusion that could potentially lead to a breakdown of the plan.

### 4.2 Communicating with external organizations

Employers should also consider communicating with external organizations when drafting response plans and worker communications. Examples of such external organizations include:

- > Insurers and major healthcare facilities
- > State and local health departments
- > Emergency responders
- > Sector specific response
- > Trade organizations/groups
- > Local community
- > Local businesses
- > Chambers of commerce

These external organizations allow for each employer to understand the current status not only at the local level, but also among other local businesses and within similar sectors across the state and nation. Having an understanding of the current situation at the local level and across similar businesses allows the employer to develop a more comprehensive response plan.

### 4.3 Communication Summary

To ensure that employers and workers are prepared for the current COVID-19 outbreak, a communication framework should be developed and implemented in an efficient and effective manner. This framework should incorporate knowledge gained from external organizations, such as those listed above. Information gained from communicating with these organizations will allow the employer to understand the current local situation and how similar and other local businesses are responding.

## 5 RECOVERY

Recovery planning is an integral part of any company response plan. A recovery plan can promote an efficient return to normal business operations. This plan is sometimes tied to an overall Business Continuity Plan, in which

business impacts have been anticipated, and mitigation plans are in place. Determining how and when specific business areas can return to normal operations should be decided ahead of time, if possible. Critical questions to answer may be:

- > What triggers our response plan?
- > When and why should we de-escalate?
- > How can recovery be effectively managed across multiple worksites?
- > When and why should we re-escalate if needed?

## 6 SUMMARY

New information and data continue to shape the global response to the COVID-19 pandemic. Workplace Response Plans to COVID-19 should be thorough, but also remain flexible so that businesses may adapt in light of new information. Comprehensive plans should incorporate various business departments and include cohesive, impactful communications to employees. Companies should respond appropriately not only to protect workers, contractors, and visitors, but also to ensure that employees are adequately informed of this emerging public health issue.

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Cardno ChemRisk is a scientific consulting firm that specializes in helping clients characterize and respond to occupational, environmental, and community health risks associated with complex exposures involving chemicals and biological and pharmaceutical agents. Our professional staff of 100 scientists – including epidemiologists, engineers, industrial hygienists, microbiologists, toxicologists, and statistical analysts – serve commercial, government, legal, and policy clients from 20 offices across the United States.

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