

Interim US Guidance for Risk Assessment and Public Health Management of Persons with Potential Coronavirus Disease 2019 (COVID-19) Exposures: Geographic Risk and Contacts of Laboratory-confirmed Cases

Updated March 7, 2020

Recommendations in this document for actions by public health authorities apply primarily to US jurisdictions that are not experiencing sustained community transmission. CDC will provide separate guidance for US jurisdictions with sustained community transmission.

CDC has provided separate guidance for [healthcare settings](#).

Summary of changes

Revisions were made on March 14, 2020, to reflect the following:

- Updated section on Crews on Passenger or Cargo Flights
- Added section on Personnel in Critical Infrastructure Positions

Revisions were made on March 7, 2020, to reflect the following:

- Definitions for congregate settings and social distancing were revised

Revisions were made on March 5, 2020, to reflect the following:

- Clarified that in jurisdictions without sustained community transmission, decisions for public health action should be based on the priorities of public health authorities (e.g., surveillance, contact tracing). In jurisdictions with sustained community transmission, travelers and other potentially exposed individuals should follow local guidance. Also provided a rationale for these changes.
- Updated definitions for self-observation, self-monitoring, and self-monitoring with public health supervision
- Provided exposure risk definitions and recommended management for countries other than China
- Updated recommendations for Crews on Passenger or Cargo Flights

- Removed Workplace section
- Added links to information on discontinuation of isolation for patients with laboratory-confirmed COVID-19
- Clarified that a potentially exposed person’s risk level does not change if symptoms develop
- Reorganized tables
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Background

CDC is closely monitoring an epidemic of respiratory illness (COVID-19) caused by a [novel \(new\) coronavirus](#) (SARS-CoV-2) that was first detected in Wuhan, Hubei Province, China. Chinese health officials have reported tens of thousands of illnesses with COVID-19 in China and the virus is spreading from person-to-person in many parts of that country. Cases of COVID-19 are also being reported in a growing number of [international locations](#), several of which are experiencing sustained community-level or widespread person-to-person transmission. Cases of COVID-19 without direct links to travel have been reported [in the United States](#) and sustained transmission is occurring in some US communities.

Purpose

The purpose of this interim guidance is to provide public health authorities and other partners in US jurisdictions that are not experiencing sustained community transmission of COVID-19 with a framework for assessing and managing risk of potential exposures to SARS-CoV-2 and implementing public health actions based on a person’s risk level and clinical presentation. Public health actions may include monitoring or the application of movement restrictions, including isolation and quarantine, when needed to delay the introduction and spread of SARS-CoV-2 in these communities.

The recommendations in this guidance apply to US-bound travelers who may have been exposed to SARS-CoV-2 and people identified through contact investigations of laboratory-confirmed cases. CDC acknowledges that state and local jurisdictions may make risk management decisions that differ from those recommended here. Public health management decisions should be based on the situation in the jurisdiction and the priorities of public health authorities. The guidance will be updated based on the evolving circumstances of the epidemic.

Rationale

The guidance was designed for a “containment” approach in the absence of sustained SARS-CoV-2 transmission in US communities in order to delay introduction and spread of SARS-CoV-2. It focuses on decreasing the risk of unrecognized case importation from international locations with sustained transmission and managing contacts of laboratory-confirmed cases. In US jurisdictions that are not experiencing sustained community transmission, these activities are still important; however, a resource-intensive containment approach that focuses on international travelers poses a risk of diverting public health resources from other priority activities, including surveillance and case finding, contact tracing, and preparing for community mitigation measures. Allowing health departments the flexibility to prioritize public health actions in their jurisdictions enables prudent deployment of public health resources where they can have the most benefit based on the local situation. State and local health departments are best positioned to make such decisions within their jurisdictions.

In US jurisdictions with sustained community transmission, shifting from containment to mitigation conserves public health resources and directs them to where they can have the most benefit. In such jurisdictions, residents may have the same exposure risk as international travelers from countries with sustained transmission; therefore, applying stringent containment measures to international travelers (e.g., staying home for 14 days) no longer has a public health benefit and would be arbitrary in the context of similar risk among others in the community. Applying such containment measures (e.g., asking people to stay home) community-wide would have severe detrimental effects on community infrastructure. When SARS-CoV-2 is spreading in a community, it is also not feasible to identify all people with symptoms compatible with COVID-19 or identify all potentially exposed contacts. Applying stringent containment measures to people who are tested and have laboratory confirmation and their contacts, but not to others who are not tested and their contacts, would have no public health benefit. Such an approach could hamper surveillance efforts and ability of public health authorities to make data-driven decisions for the implementation of community mitigation measures. Separate CDC guidance is in development that harmonizes recommendations for people who are tested and confirmed positive for COVID-19 and others in the community who are symptomatic but not tested, as well as their contacts.

Definitions Used in this Guidance

Symptoms compatible with COVID-19, for the purpose of these recommendations, include subjective or measured fever, cough, or difficulty breathing.

Self-observation means people should remain alert for subjective fever, cough, or difficulty breathing. If they feel feverish or develop cough or difficulty breathing during the self-observation period, they should take their temperature, self-isolate, limit

contact with others, and seek advice by telephone from a healthcare provider or their local health department to determine whether medical evaluation is needed.

Self-monitoring means people should monitor themselves for fever by taking their temperatures twice a day and remain alert for cough or difficulty breathing. If they feel feverish or develop measured fever, cough, or difficulty breathing during the self-monitoring period, they should self-isolate, limit contact with others, and seek advice by telephone from a healthcare provider or their local health department to determine whether medical evaluation is needed.

Self-monitoring with delegated supervision means, for certain occupational groups (e.g., some healthcare or laboratory personnel, airline crew members), self-monitoring with oversight by the appropriate occupational health or infection control program in coordination with the health department of jurisdiction. The occupational health or infection control personnel for the employing organization should establish points of contact between the organization, the self-monitoring personnel, and the local or state health departments with jurisdiction for the location where personnel will be during the self-monitoring period. This communication should result in agreement on a plan for medical evaluation of personnel who develop fever, cough, or difficulty breathing during the self-monitoring period. The plan should include instructions for notifying occupational health and the local public health authority, and transportation arrangements to a pre-designated hospital, if medically necessary, with advance notice if fever, cough, or difficulty breathing occur. The supervising organization should remain in contact with personnel through the self-monitoring period to oversee self-monitoring activities.

Self-monitoring with public health supervision means public health authorities assume the responsibility for oversight of self-monitoring for certain groups of people. The ability of jurisdictions to initiate or provide continued oversight will depend on other competing priorities (e.g., contact tracing, implementation of community mitigation strategies). Depending on local priorities, CDC recommends that health departments consider establishing initial communication with these people, provide a plan for self-monitoring and clear instructions for notifying the health department before the person seeks health care if they develop fever, cough, or difficulty breathing. As resources allow, health authorities may also check in intermittently with these people over the course of the self-monitoring period. If travelers for whom public health supervision is recommended are identified at a US port of entry, CDC will notify state and territorial health departments with jurisdiction for the travelers' final destinations.

Active monitoring means that the state or local public health authority assumes responsibility for establishing regular communication with potentially exposed people to assess for the presence of fever, cough, or difficulty breathing. For people

with high-risk exposures, CDC recommends this communication occurs at least once each day. The mode of communication can be determined by the state or local public health authority and may include telephone calls or any electronic or internet-based means of communication.

Close contact is defined as:

a) being within approximately 6 feet (2 meters) of a COVID-19 case for a prolonged period of time; close contact can occur while caring for, living with, visiting, or sharing a healthcare waiting area or room with a COVID-19 case

– or –

b) having direct contact with infectious secretions of a COVID-19 case (e.g., being coughed on)

Public health orders are legally enforceable directives issued under the authority of a relevant federal, state, or local entity that, when applied to a person or group, may place restrictions on the activities undertaken by that person or group, potentially including movement restrictions or a requirement for monitoring by a public health authority, for the purposes of protecting the public's health. Federal, state, or local public health orders may be issued to enforce isolation, quarantine or conditional release. The list of [quarantinable communicable diseases](#) for which federal public health orders are authorized is defined by Executive Order and includes "severe acute respiratory syndromes." COVID-19 meets the definition for "severe acute respiratory syndromes" as set forth in Executive Order 13295, as amended by Executive Order 13375 and 13674, and, therefore, is a federally quarantinable communicable disease.

Isolation means the separation of a person or group of people known or reasonably believed to be *infected with a communicable disease and potentially infectious* from those who are not infected to prevent spread of the communicable disease. Isolation for public health purposes may be voluntary or compelled by federal, state, or local public health order.

Quarantine in general means the separation of a person or group of people reasonably believed to have been *exposed to a communicable disease but not yet symptomatic*, from others who have not been so exposed, to prevent the possible spread of the communicable disease.

Conditional release defines a set of legally enforceable conditions under which a person may be released from more stringent public health movement restrictions, such as quarantine in a secure facility. These conditions may include public

health supervision through in-person visits by a health official or designee, telephone, or any electronic or internet-based means of communication as determined by the CDC Director or state or local health authority. A conditional release order may also place limits on travel or require restriction of a person's movement outside their home.

Controlled travel involves exclusion from long-distance commercial conveyances (e.g., aircraft, ship, train, bus). For people subject to active monitoring, any long-distance travel should be coordinated with public health authorities to ensure uninterrupted monitoring. Air travel is not allowed by commercial flight but may occur via approved noncommercial air transport. CDC may use public health orders or [federal public health travel restrictions](#) to enforce controlled travel. CDC also has the authority to issue travel permits to define the conditions of interstate travel within the United States for people under certain public health orders or if other conditions are met.

Congregate settings are crowded public places where close contact with others may occur, such as shopping centers, movie theaters, stadiums.

Social distancing means remaining out of congregate settings, avoiding mass gatherings, and maintaining distance (approximately 6 feet or 2 meters) from others when possible.

Exposure Risk Categories

These categories are interim and subject to change.

CDC has established the following exposure risk categories to help guide public health management of people following potential SARS-CoV-2 exposure in jurisdictions that are not experiencing sustained community transmission. These categories may not cover all potential exposure scenarios. They should not replace an individual assessment of risk for the purpose of clinical decision making or individualized public health management.

All exposures apply to the 14 days prior to assessment.

For country-level risk classifications, see [Coronavirus Disease 2019 Information for Travel](#).

CDC has provided separate guidance for [healthcare settings](#).

Table 1. Risk Categories for Exposures Associated with International Travel or Identified during Contact Investigations of Laboratory-confirmed Cases

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Risk Level	Geographic (Travel-associated) Exposures*	Exposures Identified through Contact Investigation
High	Travel from Hubei Province, China	Living in the same household as, being an intimate partner of, or providing care in a nonhealthcare setting (such as a home) for a person with symptomatic laboratory-confirmed COVID-19 infection <i>without using recommended precautions</i> for home care and home isolation
Medium (assumes no exposures in the high-risk category)	<ul style="list-style-type: none"> • Travel from mainland China outside Hubei Province or Iran • Travel from a country with widespread sustained transmission, other than China or Iran • Travel from a country with sustained community transmission 	<ul style="list-style-type: none"> • Close contact with a person with symptomatic laboratory-confirmed COVID-19 • On an aircraft, being seated within 6 feet (two meters) of a traveler with symptomatic laboratory-confirmed COVID-19 infection; this distance correlates approximately with 2 seats in each direction • Living in the same household as, an intimate partner of, or caring for a person in a nonhealthcare setting (such as a home) to a person with symptomatic laboratory-confirmed COVID-19 infection <i>while consistently using recommended precautions</i> for home care and home isolation
Low (assumes no exposures in the high-risk category)	Travel from any other country	Being in the same indoor environment (e.g., a classroom, a hospital waiting room) as a person with symptomatic laboratory-confirmed COVID-

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Risk Level	Geographic (Travel-associated) Exposures*	Exposures Identified through Contact Investigation
		19 for a prolonged period of time but not meeting the definition of close contact
No identifiable risk	Not applicable	Interactions with a person with symptomatic laboratory-confirmed COVID-19 infection that do not meet any of the high-, medium- or low-risk conditions above, such as walking by the person or being briefly in the same room.

*In general, geographic exposure categories do not apply to travelers who only transit through an airport.

Recommendations for Exposure Risk Management

State and local authorities have primary jurisdiction for isolation and other public health orders within their respective jurisdictions. Federal public health authority primarily extends to international arrivals at ports of entry and to preventing interstate communicable disease threats.

CDC recognizes that decisions and criteria to use such public health measures may differ by jurisdiction. Consistent with principles of federalism, state and local jurisdictions may choose to make decisions about isolation, other public health orders, and monitoring that exceed those recommended in federal guidance. As the domestic COVID-19 situation evolves, public health authorities should base their decisions about application of individual-level monitoring or movement restrictions on the situation in their jurisdictions, including whether sustained community transmission is occurring and competing priorities.

The issuance of public health orders should be considered in the context of other less restrictive means that could accomplish the same public health goals. People under public health orders must be treated with respect, fairness, and compassion, and public health authorities should take steps to reduce the potential for stigma (e.g., through outreach to affected communities, public education campaigns). Considerable, thoughtful planning by public health authorities is needed to implement public health orders properly. Specifically, measures must be in place to provide shelter, food, water, and other necessities for people whose movement is restricted under public health orders, and to protect their dignity and privacy.

CDC's recommendations for public health management of international travelers with potential exposure to SARS-CoV-2 and people identified through contact investigations of laboratory-confirmed cases, including monitoring and the application of travel or movement restrictions, are summarized in [Table 2](#).

Additional recommendations in specific groups or settings are provided below.

Crews on Passenger or Cargo Flights

CDC and the Federal Aviation Administration have jointly provided [interim health guidance for air carriers and crews](#) [pdf icon](#) [external icon](#). This FAA-CDC guidance includes recommendations for air crews to self-monitor under the supervision of their employer's occupational health program and to remain in their hotel rooms and practice social distancing while on overnight layovers in the United States (applies to US-based crews and crews based in other countries) or internationally (applies to US-based crews). These recommendations were made because SARS-CoV-2 is spreading in all regions internationally as well as in the United States. Also, the rapidly changing situation means country-level geographic risk assessments cannot be relied on to accurately judge the risk to crewmembers in any given location. As long as they remain asymptomatic, crew members may continue to work on flights into, within, or departing from the United States. Crew members who follow their carrier's occupational health plan as well as the FAA-CDC guidance are not subject to restrictions applied to other travelers. If they develop fever, cough, or difficulty breathing, crew members should self-isolate and be excluded from work on commercial flights immediately, and remain excluded until cleared to work by their occupational health program and public health authorities.

Regardless of residence or travel history, crew members who have known exposure to persons with COVID-19 should be assessed and managed on a case-by-case basis.

Personnel in Critical Infrastructure Positions

Some personnel (e.g., emergency first responders) fill essential (critical) infrastructure roles within communities. Based on the needs of individual jurisdictions, and at the discretion of state or local health authorities, these personnel may be permitted to continue work following potential exposure to SARS-CoV-2 (either travel-associated or close contact to a confirmed case), provided they remain asymptomatic. Personnel who are permitted to work following an exposure should self-monitor under the supervision of their employer's occupational health program including taking their temperature before each work shift to ensure they remain afebrile. On days these individuals are scheduled to work, the employer's occupational health program

could consider measuring temperature and assessing symptoms prior to their starting work. Exposed healthcare personnel who are considered part of critical infrastructure should follow [existing CDC guidance](#).

People with Laboratory-Confirmed COVID-19 and Symptomatic People Under Investigation for COVID-19

CDC has established criteria for determining when an individual can be considered non-infectious to guide discontinuation of [transmission-based precautions for hospitalized patients](#) or [home isolation](#). While individuals are considered infectious, local or long-distance travel should occur only by medical transport (e.g., ambulance or air medical transport) or private vehicle. Isolation and travel restrictions are removed upon determination by public health authorities that the person is no longer considered to be infectious.

Symptomatic people who meet CDC's definition of [Persons Under Investigation](#) (PUI) should be evaluated by healthcare providers in conjunction with local health authorities. PUIs awaiting results of [rRT-PCR testing](#) for COVID-19 should remain in isolation at home or in a healthcare facility until their test results are known. Depending on the clinical suspicion of COVID-19, PUIs for whom an initial rRT-PCR test is negative may be candidates for removal of any isolation and travel restrictions specific to symptomatic people, but any restrictions for asymptomatic people according to the assigned risk level should still apply. Management decisions of PUIs who are not tested should be made on a case-by-case basis, using available epidemiologic and clinical information, in conjunction with CDC guidance.

Contacts of Asymptomatic People Exposed to COVID-19

CDC does not recommend testing, symptom monitoring or special management for people exposed to asymptomatic people with potential exposures to SARS-CoV-2 (such as in a household), i.e., "contacts of contacts;" these people are not considered exposed to SARS-CoV-2.

Table 2. Summary of CDC Recommendations for Management of Exposed Persons with by Risk Level and Presence of Symptoms

The public health actions recommended in the table below apply to people who have been determined to have at least some risk for COVID-19. People who are being managed as asymptomatic in a particular risk level who develop signs or symptoms compatible with COVID-19 should be moved immediately into the symptomatic category in the same risk level and be managed accordingly. The risk level does not change if symptoms develop.

Table 2: Risk Level

Risk Level	Management if Asymptomatic	Management if Symptomatic ¹
High risk	<ul style="list-style-type: none"> • Quarantine (voluntary or under public health orders) in a location to be determined by public health authorities. • No public activities. • Daily active monitoring, if possible based on local priorities • Controlled travel 	<ul style="list-style-type: none"> • Immediate isolation with consideration of public health orders • Public health assessment to determine the need for medical evaluation; if medical evaluation warranted, diagnostic testing should be guided by CDC’s PUI definition • If medical evaluation is needed, it should occur with pre-notification to the receiving HCF and EMS, if EMS transport indicated, and with all recommended infection control precautions in place. • Controlled travel: Air travel only via air medical transport. Local travel is only allowed by medical transport (e.g., ambulance) or private vehicle while symptomatic person is wearing a face mask.
Medium risk	<p data-bbox="344 743 909 784">Close contacts in this category:</p> <ul style="list-style-type: none"> • Recommendation to remain at home or in a comparable setting • Practice social distancing • Active monitoring as determined by local priorities • Recommendation to postpone long-distance travel on commercial conveyances <p data-bbox="344 1149 909 1222">Travelers from mainland China (outside Hubei Province) or Iran</p> <ul style="list-style-type: none"> • Recommendation to remain at home or in a comparable setting • Practice social distancing • Self-monitoring with public health supervision as determined by local priorities 	<ul style="list-style-type: none"> • Self-isolation • Public health assessment to determine the need for medical evaluation; if medical evaluation warranted, diagnostic testing should be guided by CDC’s PUI definition • If medical evaluation is needed, it should ideally occur with pre-notification to the receiving HCF and EMS, if EMS transport indicated, and with all recommended infection control precautions in place. • Controlled travel: Air travel only via air medical transport. Local travel is only allowed by medical transport (e.g., ambulance) or private vehicle while symptomatic person is wearing a face mask.

Table 2: Risk Level

Risk Level	Management if Asymptomatic	Management if Symptomatic ¹
	<ul style="list-style-type: none"> • Recommendation to postpone additional long-distance travel on commercial conveyances after they reach their final destination <p data-bbox="344 375 907 448">Travelers from other country with widespread transmission</p> <ul style="list-style-type: none"> • Recommendation to remain at home or in a comparable setting, • Practice social distancing • Self-monitoring • Recommendation to postpone additional long-distance travel on commercial conveyances after they reach their final destination <p data-bbox="344 821 907 894">Travelers from country with sustained community transmission</p> <ul style="list-style-type: none"> • Practice social distancing • Self-observation 	
Low risk	<ul style="list-style-type: none"> • No restriction on movement • Self-observation 	<ul style="list-style-type: none"> • Self-isolation, social distancing • Person should seek health advice to determine if medical evaluation is needed. • If sought, medical evaluation and care should be guided by clinical presentation; diagnostic testing for COVID-19 should be guided by CDC's PUI definition. • Travel on commercial conveyances should be postponed until no longer symptomatic.
No identifiable risk	None	<ul style="list-style-type: none"> • Self-isolation, social distancing

Table 2: Risk Level

Risk Level	Management if Asymptomatic	Management if Symptomatic ¹
		<ul style="list-style-type: none"> • Person should seek health advice to determine if medical evaluation is needed. • If sought, medical evaluation and care should be guided by clinical presentation; diagnostic testing for COVID-19 should be guided by CDC's PUI definition. • Travel on commercial conveyances should be postponed until no longer symptomatic.

EMS = emergency medical services; HCF = healthcare facility; PUI = Person Under Investigation for COVID-19

¹For the purpose of this document: subjective or measured fever, cough, or difficulty breathing.

Note: The public health management recommendations made above are primarily intended for jurisdictions not experiencing sustained community transmission. In jurisdictions not experiencing sustained community transmission, CDC recommends that post-exposure public health management for asymptomatic exposed individuals continue until 14 days after the last potential exposure; however, these decisions should be made based on the local situation, available resources, and competing priorities. These factors should also guide decisions about managing symptomatic exposed individuals.

International travelers and other potentially exposed individuals in jurisdictions experiencing sustained community transmission should follow local guidance.

For country-level risk classifications, see [Coronavirus Disease 2019 Information for Travel](#).

CDC has provided separate guidance for [healthcare settings](#).