Contact Tracing for COVID-19
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Summary of COVID-19 Specific Practices

- State and local public health officials will decide how to implement these activities and how to advise specific people, or groups of people, to be tested.
- Contact tracing will be conducted for close contacts (any individual within 6 feet of an infected person for at least 15 minutes) of **laboratory-confirmed or probable COVID-19 patients.**
- Remote communications for the purposes of case investigation and contact tracing should be prioritized; in-person communication may be considered only after remote options have been exhausted.
- Testing should be considered for all close contacts of **confirmed or probable COVID-19 patients**.
- Those contacts who test positive (symptomatic or asymptomatic) should be managed as a confirmed COVID-19 case.
- Asymptomatic contacts testing negative should self-quarantine **for 14 days from their last exposure** (i.e., close encounter with confirmed or probable COVID-19 case)
- If testing is not available, **symptomatic** close contacts should self-isolate and be managed as a probable COVID-19 case.
- **Asymptomatic** close contacts who are not tested should self-quarantine and be monitored for 14 days after their last exposure, with linkage to clinical care for those who develop symptoms.

For COVID-19, a close contact is defined as any individual who was within 6 feet of an infected person for at least 15 minutes starting from 2 days before illness onset (or, for asymptomatic patients, 2 days prior to positive specimen collection) until the time the patient is isolated.

The public health evaluation of close contacts to patients with laboratory-confirmed or probable COVID-19 may vary depending on the exposure setting. Contacts in special populations and/or congregate settings require additional considerations and may need handoff to a senior health department investigator or special team. Additional guidance on managing these contacts can be found in Outbreak Investigations.

Close Contact Evaluation and Monitoring Priorities

In jurisdictions with testing capacity, symptomatic and asymptomatic close contacts to patients with confirmed and probable COVID-19 should be evaluated and monitored. For areas with insufficient testing support and/or limited public health resources, the following evaluation and monitoring hierarchy (Box 4) can be used to help guide prioritization. The hierarchy is based on the assumption that if close contacts listed in Priority 1 *become infected,* they could potentially expose many people, those at higher risk for severe disease, or critical infrastructure workers. If close contacts in Priority 2 *become infected*, they may be at higher risk for severe disease, so prompt notification, monitoring, and linkage to needed medical and support services is important.

When prioritizing close contacts to evaluate and monitor, jurisdictions should be guided by the local characteristics of disease transmission, demographics, and public health and healthcare system capacity. Some states require mandatory testing for specific circumstances. Local decisions depend on local guidance and circumstances.

Box 4. Close Contact Evaluation and Monitoring Hierarchy

EVALUATE/MONITOR CLOSE CONTACTS WHO ARE:

PRIORITY 1

- Hospitalized patients
- Healthcare personnel (HCP)
- First responders (e.g., EMS, law enforcement, firefighters)
- Individuals living, working or visiting acute care, skilled nursing, mental health, and long-term care facilities
- Individuals living, working or visiting community congregate settings (e.g., correctional facilities, homeless shelters, educational institutions, mass gatherings, and workplaces including production plants)
- Member of a large household living in close quarters
- Individuals who live in households with a higher risk individual or who provide care in a household with a higher risk individual (Note: Household members who likely had extensive contact with a patient with COVID-19 should constitute the highest risk close contacts.)

PRIORITY 2

- Critical infrastructure workers*
- Individuals 65 years of age and older
- Individuals at higher risk for severe disease
- Pregnant women

PRIORITY 3

- Individuals **with** symptoms who do not meet any of the above categories

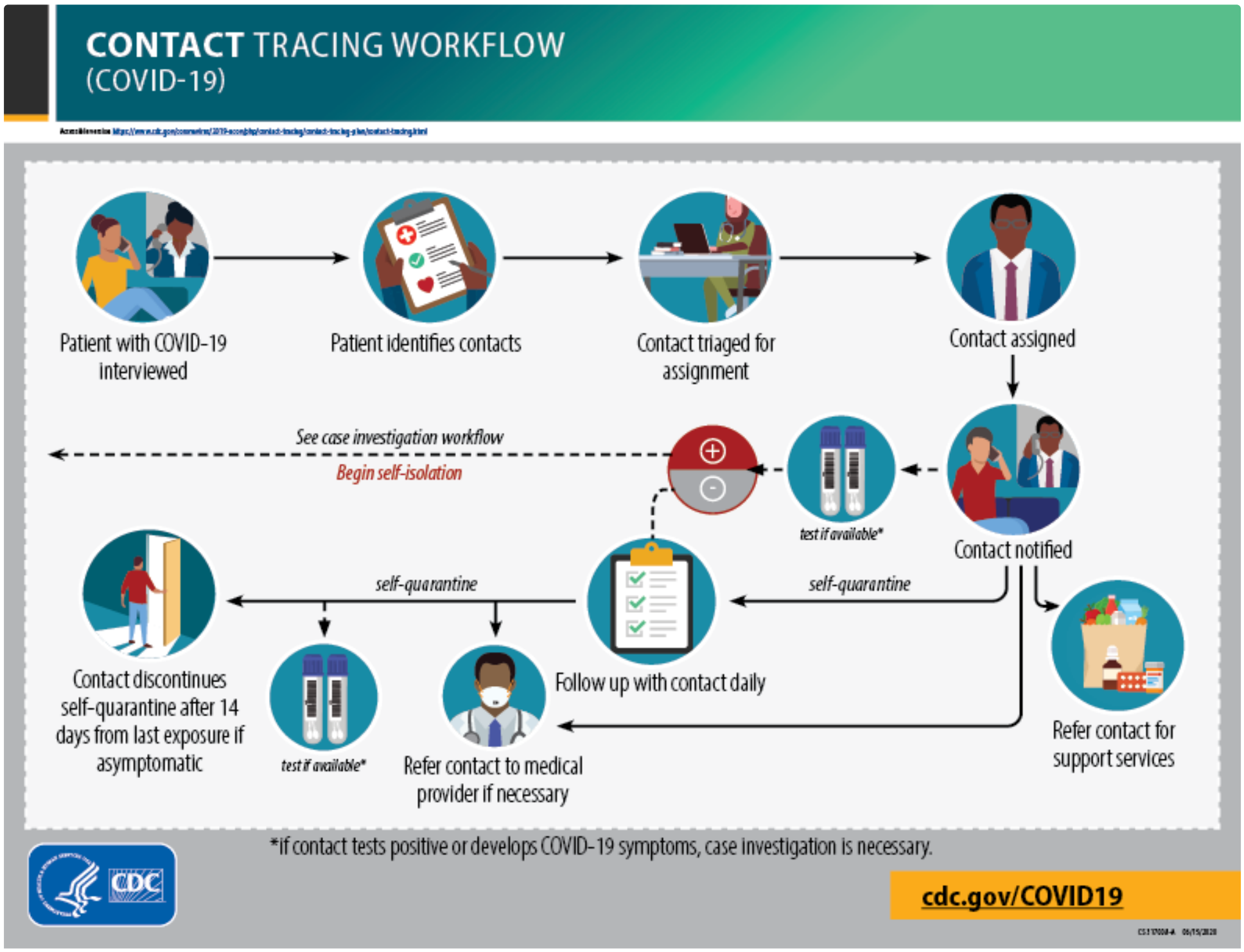
PRIORITY 4

- Individuals **without** symptoms who do not meet any of the above categories

Consider moving to Priority 1 any critical infrastructure worker who works closely with other critical infrastructure workers and/or is in close contact with large numbers of people (e.g., transportation, food service).

Note: Boxes 1-3 can be found under the "Investigating a COVID-19 Case" section of the guidance.

Contact tracers use clear protocols to notify, interview, and advise close contacts to patients with confirmed or probable COVID-19. Jurisdictions can use the following steps and considerations as a framework when developing a protocol for the tracing of close contacts.



COVID-19 Contact Tracing Workflow

Step 1: Rapid Notification of Exposure

For contacts in your health department's jurisdiction:

- A close contact to a patient with confirmed or probable COVID-19 should be notified of their exposure as soon as possible (within 24 hours of contact elicitation). The patient may elect to notify some or all of their close contacts before the contact tracer.
- *The identity of the patient or other identifying information will not be revealed, alluded to, or confirmed by the contact tracer, even if explicitly asked by a contact.*
- Contacts can be notified through different channels such as phone, text, email, or in-person (if appropriate) in the primary language of the individual. Special consideration should be given to ensure culturally and linguistically appropriate communications, if possible. The protocol should clearly outline the primary and secondary means of notifying a contact.
- Protocols should be in place to provide services to people who are deaf or who have hearing loss.
- Depending on the information elicited during the case investigation, locating information for the contact may be insufficient. Tips on additional resources that may be used to obtain missing locating information can be found in Appendix B. Every effort should be made to reach the contact remotely before attempting in-person communication.

Operational Questions to Consider

- Who will conduct contact notification in your jurisdiction? (e.g., case investigators, other public health staff, volunteers, contracted staff)
- How will you collaborate to transfer contact information from one jurisdiction to another to ensure notification of exposure for contacts outside of your jurisdiction?
- How can your jurisdiction incorporate existing or new technology (e.g., mobile app) into a contact tracer's workflow to speed up contact notification?
- When is in-person notification needed? *Contact tracers expected to perform in-person notification need appropriate training on infection prevention and control practices and must obtain any necessary PPE prior to conducting in-person activities.*
- Will contact tracers be asked to notify a client's household contacts/known contacts, or will the client be asked to make these notifications?
- How will notification of exposure be handled for minors?
- If an entire household is exposed, will there be one point of contact for the household or separate contacts for every household member?
- How will a contact tracer follow up with a contact if the client makes the notification?
- How will you work with employers when many contacts are within a work setting?

Step 2: Contact Interview

- Every effort should be made to interview the close contact by telephone, text, or video conference instead of in-person. The interview should be conducted in the individual's primary language (through interpretation services, if necessary). For in-person interviews, guidance on recommended infection prevention and control practices at a home or non-home residential setting can be found on CDC's Evaluating PUIs Residential page.
- Appendix C includes critical data elements that can be incorporated into a jurisdiction's form used to interview contacts to assess symptoms, better characterize their underlying risk for infection, and assess home and social factors that could impact compliance with self-quarantine.
- Notification of Exposure – A Contact Tracer's Guide for COVID-19 focuses on communication strategies for contact interviews and provides suggested language for each topic area covered in an interview.

Operational Questions to Consider

- If a contact needs to be interviewed via an interpreter, how will those services be accessed?
- How will your jurisdiction navigate confidentiality challenges when the calendar date of an exposure easily reveals who may have exposed a contact to COVID-19?
- What steps will be taken if a contact is unwilling or unable to be interviewed or cannot be located?

Step 2a: Quarantine/Isolation Instructions and Testing

Quarantine/Isolation instructions

- Close contacts **who were not diagnosed with COVID-19** within the last 90 days:
  - Those **with no symptoms** will be asked to self-quarantine for 14 days from their last potential exposure and should be considered for testing. The last potential exposure would initially be determined by the case investigator. See *Sample Quarantine Instructions for Close Contacts with No Symptoms*
  - Those **with symptoms** should immediately self-isolate for 10 days after symptom onset and be referred for testing and medical care. Negative test results for contacts do not change the length of quarantine. It is still 14 days.

- Close contacts **who were diagnosed with COVID-19** by either (1) a positive RT-PCR test for SARS-CoV-2 RNA within the last 90 days or (2) a healthcare provider based on their symptoms, and 90 days or less have passed since their symptoms began.
  - Those **with no current symptoms** of COVID-19 do not have to quarantine, and retesting is not recommended.

    - Those **with symptoms**, should begin self-isolation immediately for 10 days after symptom onset and consult with a medical provider to determine if they may have been re-infected with SARS-CoV-2 or if symptoms are caused by another etiology. Contacts with no primary healthcare provider will need to be connected to telemedicine (e.g., videoconference or phone consultation). Negative test results for contacts do not change the length of quarantine. It is still 14 days.
- Advise contacts to cancel or postpone plans that involve social gatherings, vacations or other planned travel until cleared for these activities by public health authorities (based on the guidance above).
    - Local and state health departments may request federal public health travel restrictions, which prevent listed travelers from boarding commercial airplanes and trigger public health notification if they enter the United States by land or sea, to support state- or local-mandated quarantine or isolation for contacts.
    - Support with federal public health travel restrictions may be requested by public health partners by contacting the CDC quarantine station with jurisdiction for the area.
- If needed, jurisdictions should refer clients for social support services (for example, food, childcare, housing, and other services) to help encourage clients to stay at home and comply with quarantine or isolation.
- If contacts refuse to comply voluntarily with self-quarantine or self-isolation instructions, jurisdictions should consider what options (e.g., legal order for isolation) are available to them under relevant state or local legal authority.

Testing Instructions

- If resources permit, jurisdictions should arrange for all close contacts to be tested, as appropriate.
- Regarding test results by RT-PCR for SARS CoV-2 RNA for contacts with no previous COVID-19 infection in the past 90 days:
    - **If test results are positive**, close contacts will be referred to a case investigator.
    - **If test results are negative:**
        - **Asymptomatic close contacts** should continue to self-quarantine for a full 14 days after last exposure and follow all recommendations of public health authorities.
        - **Symptomatic close contacts** should continue to self-quarantine until symptom resolution as recommended by public health authorities. A second test and additional medical consultation may be needed if symptoms do not improve.
    - **If testing is not available**, symptomatic close contacts should be advised to self-isolate for 14 days and be managed as a probable case. Self-isolation *is recommended for people with probable or confirmed COVID-19 who have mild illness and are able to recover at home.*
- All close contacts should be educated about COVID-19 symptoms to monitor for and be instructed to promptly report any new symptoms to public health authorities and seek medical care when necessary.

Sample Quarantine Instructions for Close Contacts with No Symptoms

- Self-quarantine, preferably at home, until 14 days after the last potential exposure, maintain social distance (at least 6 feet) from others at all times, and follow all CDC guidance on self-quarantine.
- Self-monitor daily for symptoms. *[NOTE: Include instructions on how close contacts can report symptoms to the health department and agreed upon reporting times.]*
    - If you have a thermometer, check and record your temperature twice a day. Thermometers should not be shared.
    - Contact a healthcare provider immediately if you:
        - Feel feverish or have a temperature of 100.4^{0}F or higher.
        - Develop a cough or shortness of breath.
        - Have persistent pain or pressure in your chest.
        - Develop new confusion.
        - Are unable to wake up or stay awake.
        - Have bluish lips or face.
        - Develop mild symptoms like sore throat, muscle aches, tiredness, or diarrhea.
    - Avoid contact with people at higher risk for severe illness (unless they live in the same home and had the same exposure as you).

Follow CDC guidance if you develop symptoms.

Operational Questions to Consider

- Under what circumstances will quarantine be mandatory (under public health orders) as opposed to voluntary?
- Who will be referred for testing (e.g., symptomatic, asymptomatic) and how (e.g., testing site, home test kit)?
- How will contacts be checked against databases of already confirmed cases to ensure they are not already in self-isolation?
- Will contact tracers be collecting diagnostic respiratory specimens?
- How will contacts be monitored for self-quarantine compliance?
- What services are available in the community to support workers who need to stay home and self-quarantine?
- How can your jurisdiction incorporate technology, such as a mobile app or online tool, to assist with active monitoring of close contacts (e.g., symptom reporting, temperature checks)?
- Can your jurisdiction supply a letter/email to close contacts documenting their need to self-quarantine for a specified date range? Contacts could provide this to their employers to verify the reason for a work absence.

Step 2b: Assessing Self-Quarantine Support Needs

Emphasis should be placed on helping contacts identify any need for social support during self-quarantine.

Self-quarantine of close contacts exposed to COVID-19 prevents transmission to others and is critical to the success of case investigation and contact tracing efforts. For most, self-quarantine can take place at home. If possible, contacts should be asked to voluntarily stay home, monitor themselves, and maintain social distance from others. The timeframe for self-quarantine is 14 days following the last day of exposure to a patient with COVID-19, to ensure that the contact does not get sick themselves and spread the virus to others. Adherence to self-quarantine instructions may depend on the support provided to contacts.

Self-quarantine requires that a contact remain in a specific room separate from other non-exposed people and pets in the home, and ideally with access to a separate bathroom. First and foremost, the contact tracer should assess an individual's ability to self-quarantine in a safe environment that provides access to a private room and bathroom, as well as access to adequate food and water among other considerations. For a portion of the US population, self-quarantine at home will be a challenge. It will be particularly difficult for some of the most vulnerable populations.

Considerations must also be made for close contacts who express fear of abuse or violence if they must self-quarantine at home. Additionally, some contacts (e.g., single parents, nursing mothers, parents with children and toddlers, and other primary caregivers) may face other challenges, such as childcare or dependent adult care, that may affect their ability to self-quarantine. Social services, housing and other supportive services will be needed for those contacts who are unable to separate themselves from others in their current living situation. See Support Services for further considerations.

Close contacts will also need to be supported with health coaching to ensure daily monitoring of temperature and the onset of any COVID-19 symptoms and have access to clinical services should symptoms appear. Coordination of access to telehealth services may be needed for contacts without virtual access to a primary care provider. All close contacts entering a 14-day self-quarantine period should be provided a COVID-19 kit with the following resources*:

- Washable cloth face covering
- Gloves
- Digital thermometer
- Alcohol-based hand sanitizer, soap, EPA-registered household disinfectant
- COVID-19 health education materials (translated into the appropriate language)
- Instructions for cleaning and disinfecting your home for those sharing space with others
- A hotline/warmline to address any support needs during the self-quarantine period, including medical support

*The composition of the COVID-19 kit will depend on the jurisdiction's resources.

Operational Questions to Consider

- Are there other resources that your jurisdiction can share to provide health advice and answer questions? (e.g., mobile app, hotline/call center, CDC Coronavirus Symptom Self-Checker, CDC-INFO)

Step 3: Medical Monitoring

- Contacts who agree to self-quarantine will ideally receive active daily monitoring through real-time communication methods (e.g., telephone calls, video conferencing) to check-in on their temperature and COVID-19 symptoms throughout the length of their self-quarantine.
- If a jurisdiction's resources do not allow for active daily monitoring, contacts will be asked to self-monitor and communicate remotely (e.g., email, recorded video, telephone message, text, monitoring apps) to notify public health authorities of their health status and promptly communicate any new symptoms or symptoms of increasing severity. A daily temperature/symptom log can be provided to the contact electronically to aid in self-monitoring.
- For those individuals self-monitoring and sharing reports remotely, reports must be received by the agreed upon time each day, and protocol must address follow-up actions for contacts who do not report out.
- Contacts who develop and report symptoms should be linked to clinical care and testing. For contacts who report testing, follow up to confirm results.
    - If positive, the contact will be referred to a case investigator.
    - If negative, symptomatic contacts should continue to self-quarantine and follow all recommendations of public health authorities. A second test and additional medical consultation may be needed if symptoms do not improve.
    - If testing is not available, symptomatic close contacts should be advised to self-isolate and be managed as a probable case. *Self-isolation is recommended for people with probable or confirmed COVID-19 who have mild illness and are able to recover at home.*

Operational Questions to Consider

- What steps will be taken for contacts under self-monitoring who do not report as required? How intensive will the outreach be (e.g., same-day home visit)?

Step 3a: Monitoring and Isolation Instructions

- Clients with probable or confirmed COVID-19 should be advised to self-isolate immediately, if they are not doing so already. *Self-isolation is recommended for people with probable or confirmed COVID-19 who have mild illness and are able to recover at home.*
- It should be made clear to the client whether the isolation instructions are voluntary or mandatory, as determined by state or local public health authorities.
- Advise clients to cancel or postpone plans that involve social gatherings, vacations or other planned travel until cleared for these activities by public health authorities.
    - Local and state health departments may request federal public health travel restrictions, which prevent listed travelers from boarding commercial airplanes or entering the United States by land or sea, to support state- or local-mandated isolation for infected individuals.Support with federal public health travel restrictions may be requested by public health partners only by contacting the CDC quarantine station with jurisdiction for the area.
- If needed, jurisdictions should refer clients for social support services (for example, food, childcare, housing, and other services) to help encourage clients to stay at home and comply with isolation.
- If clients refuse to comply voluntarily with self-isolation instructions, jurisdictions should consider what options (e.g., legal order for isolation) are available to them under relevant state or local legal authority.
- The client should be informed of COVID-19 symptoms to monitor for and be instructed to get medical attention immediately if he/she experiences any emergency warning signs, such as trouble breathing. Clients with no primary healthcare provider will need linkage to telemedicine or phone consultation.
- The client should also be informed of ways to prevent infection among those living in their household.

- Additional self-isolation guidance should be reviewed with the client and instructional materials provided. Sample materials can be found on the CDC website:
  - 10 things you can do to manage your COVID-19 symptoms at home pdf icon
  - What to Do If You Are Sick
  - When You Can be Around Others After You Had or Likely Had COVID-19
- All instructions should be provided in a client's primary language.

Operational Questions to Consider

- Under what circumstances will isolation be mandatory (under public health orders) as opposed to voluntary? How will this distinction be made clear to a patient?
- How will clients be monitored for isolation compliance?
- In the event that self-isolation is not feasible, what alternative supports exist, and/or what risk-reduction measures can be taken?

Step 4: Contact Close Out

- Contacts who remain asymptomatic for 14 days after last exposure can be notified of their release from monitoring and provided general health education in their primary language.
- Contacts who develop symptoms but test negative during their monitoring period should continue to self-quarantine and follow all recommendations of public health authorities. A second test and additional medical consultation may be needed if symptoms do not improve. The decision to release a contact from self-quarantine should be determined at the local level and should be communicated clearly to the contact.

Operational Questions to Consider

- Will the health department send an alert notification to the individual one day prior to the end of self-quarantine to double-check signs/symptoms and authorize return to work?
- Will a "return to work" letter be available to contacts who request one after completing the monitoring period?
- Will a warmline be offered to address any post-monitoring issues?

Related Page

Contact Tracing Resources

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