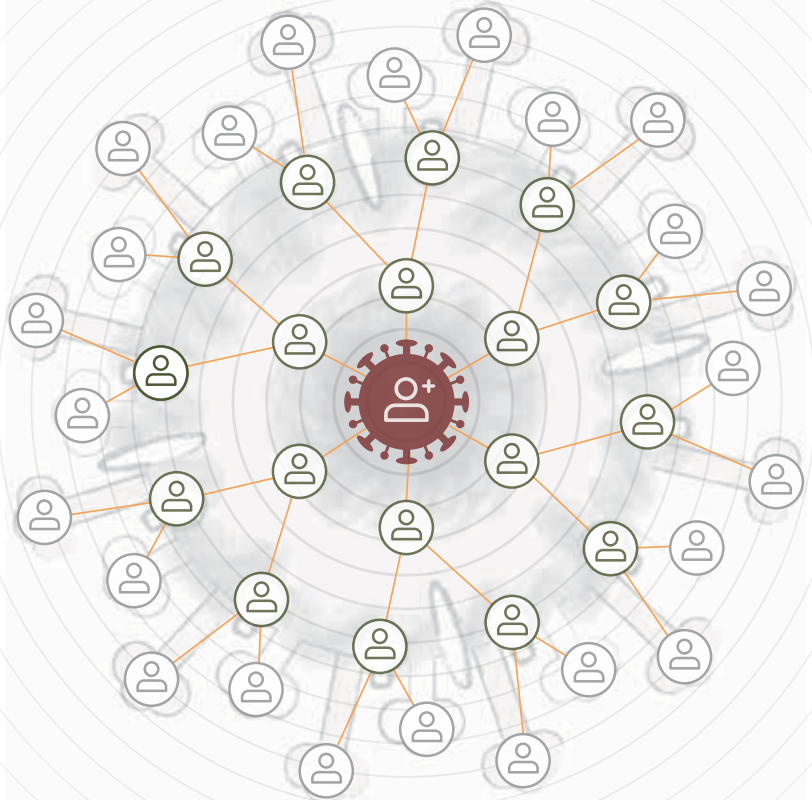


Africa Centres for Disease Control and Prevention

Guidance on Contact Tracing for **COVID-19** Pandemic



1 Executive Summary: Recommendations for Action

- Contact tracing may help limit COVID-19 transmission when the first cases are identified within a country but can be very resource intensive. It is likely not to be feasible when community transmission is occurring and cases outside known transmission chains increase greatly.
- Member States are advised to use the characteristics of the epidemic in their country to decide when and how to do contact tracing (see Africa Centres for Disease Control and Prevention Recommendations for Stepwise Response to COVID-19¹). Different parts of a country may be in different phases at the same time.
 - **In Epidemic Phases 1-2** (imported cases and cases in known transmission chains): trace all contacts defined as all persons who have been within one metre of a confirmed case for 15 minutes at any time from two days before symptoms started to the time symptoms resolved.
 - **In Epidemic Phases 3-4** (community transmission, cases outside known transmission chains): halt contact tracing in all outbreak areas; perform contact tracing only in areas reporting first cases or high-risk settings.
- Introduce and sensitise the population to the concepts of contact tracing, home quarantine for contacts and home isolation for mild and moderate cases, as early as possible, even before cases are reported.
- Use home quarantine for contacts in preference to facility quarantine, based on acceptability, feasibility, ethics, and resources.
- Ensure that people in home quarantine have adequate supply of basic needs, either through government or community support.
- If using facility-based quarantine, ensure a safe and healthy environment, including food, water, hygiene, sleep, infection prevention, medical care, and respect for the rights and dignity of persons.
- Only test contacts for SARS-CoV2 if they are symptomatic; contacts without symptoms should not be tested.²

1 Recommendations for stepwise response to COVID-19, available at: <https://africacdc.org/download/recommendations-for-stepwise-response-to-covid-19/>

2 Advice to be reviewed as new diagnostics, such as point of care tests, become available.

- Maintain a low threshold for tracing exposed healthcare workers, even if they have been wearing appropriate personal protective equipment due to their high contact with vulnerable people.

2 COVID-19 Characteristics that Affect Contact Tracing and Management of Contacts



COVID-19 is transmitted primarily through droplets which generally disperse within one metre of the case.



Infected people are thought to be able to start transmitting COVID-19 from 2 to 14 days after being infected. Because it is usually not possible to tell when a person has been infected, the period of risk of transmission is counted from the time of the most likely exposure.



People can be infected but have no symptoms. There is, to date, little evidence that asymptomatic people can transmit the virus, but this possibility must be considered until there is clear evidence.



Most infected “asymptomatic” people develop symptoms and infectiousness as time passes – true asymptomatic infection appears to be rare. Some studies suggest that a person may be infectious for up to two days before they develop symptoms.



Cases with mild symptoms are numerous and there is some evidence that such people can transmit the infection. But they are not always aware of their potential infectivity and may continue their activities, placing friends, family, workmates and health workers at risk of infection.

3 Definition of a Contact

A contact is a person who has experienced any of the following exposures during the two days before and the 14 days after the onset of symptoms of a probable or confirmed case:

- Face-to-face contact with a probable or confirmed case within one metre and for more than 15 minutes.
- Direct physical contact with a probable or confirmed case.
- Direct care for a patient with probable or confirmed COVID-19 disease without using proper personal protective equipment.
- Other situations as indicated by risk assessment of situations. For example, exposure in closed environments such as classrooms, places of worship, hospital waiting rooms, and shared transport.

NOTE: For confirmed asymptomatic cases, the period of contact is measured as the two days before through the 14 days after the date on which the sample was taken that led to confirmation.

Africa CDC Guidance for Assessment, Monitoring, and Movement Restrictions of People at Risk for COVID-19 in Africa provides advice on how to manage people returning from COVID-19 affected areas.

4 Adapting Contact Tracing Strategies for a Changing Epidemic

For COVID-19, it is recommended that all close contacts of confirmed cases should be traced in the early days/weeks of the epidemic. However, given the speed of transmission of COVID-19, the number of contacts requiring follow-up can be expected to increase rapidly if sustained community transmission occurs. Contact tracing is resource intensive and at a certain point may no longer contribute enough to effective epidemic control to justify the resources required. Attempting to maintain follow-up of all contacts can jeopardize the quality of contact follow-up and divert resources away from other interventions.

There is no clear evidence-based threshold for when contact tracing should be reduced or halted. However, Member States are advised to review the following considerations in the light of their specific situation to assist decision-making. Africa CDC experts are available at any time to discuss the circumstances of specific Member States.

Strategy options

Several strategies are being described by public health organizations around the world using different approaches to contact tracing alongside other interventions, depending on the stage of the epidemic in a Member State or part of a country. These can broadly be divided into two:

- a. Containment:** which aims to stop the disease and limit the duration of the outbreak by finding and isolating cases early, identifying all close contacts, and limiting transmission using the methods described above.
- b. Delay and mitigation:** which aim to slow transmission and reduce the burden on health services. In this phase, comprehensive contact tracing becomes difficult due to the increasing numbers of cases. Interventions such as community social distancing or 'lock down' may be used. Not all contacts can be identified and traced, and the focus of contact tracing shifts to where the effect will be greatest, e.g. among more vulnerable groups, newly affected areas, or specific clusters where containment is considered still be possible.

The most appropriate strategy depends on the stage of the epidemic (Table 1). There are four main phases: no reported cases, imported cases with limited local transmission, increased imported and local transmission but still linked to known chains of infection, and widespread sustained community transmission. Member States may move rapidly from one scenario to another as the situation evolves, particularly if there is widespread local transmission in neighbouring countries, or if understanding of virus circulation expands due to increased testing. Different parts of a country may be in a different phase.

Table 1: Recommended contact tracing activity by epidemic phase

Epidemic phase	Characteristics of the phase	Contact tracing level
<p>Phase 0: No COVID-19 case</p>	<ul style="list-style-type: none"> No reported cases in-country 	<p>Aim: Preparedness</p> <ul style="list-style-type: none"> Sensitise the population to the idea of outbreak control measures including contact tracing, quarantine, individual and community social distancing
<p>Phase 1: Early stage outbreak</p>	<ul style="list-style-type: none"> One or more imported cases Limited local transmission related to imported cases 	<p>Aim: Prevent sustained transmission</p> <ul style="list-style-type: none"> Conduct contact tracing (contact identification for all confirmed cases, contact listing and classification, choose contact follow-up approach and do daily contact follow-up)
<p>Phase 2: Expanding outbreak</p>	<ul style="list-style-type: none"> Increasing number of imported cases Increased local spread but all cases linked to known transmission chains Outbreak clusters with a known common exposure 	<p>Aim: Contain and slow transmission</p> <ul style="list-style-type: none"> Intensify contact tracing and adherence to quarantine as much as possible. If resources reach limit, prioritise contacts follow-up with the highest risk exposures, particularly health workers and vulnerable populations
<p>Phase 3: Advancing outbreak</p>	<ul style="list-style-type: none"> Localised outbreaks start to merge One or more cases or deaths occur outside known transmission chains Sustained person to person transmission – multiple generations in transmission chains Cases are detected among severe acute respiratory illness (SARI) case with no known exposure 	<p>Aim: Delay transmission to delay and reduce outbreak peak and burden on health services</p> <ul style="list-style-type: none"> Halt contact tracing in all outbreak areas Trace contacts only in districts reporting first cases where containment might still be possible or among high-risk vulnerable contacts
<p>Phase 4: Large outbreak with nationwide transmission</p>	<ul style="list-style-type: none"> Widespread sustained community transmission Multiple generation transmission chains can be identified but most cases occurring outside of chains Community-wide transmission throughout all or nearly all of the country 	<p>Aim: Reduce mortality among severe cases</p> <ul style="list-style-type: none"> Halt contact tracing activities with few exceptions, determined by the need and value for doing so, such as outbreaks in hospitals Use country-adapted syndromic case definition to count cases

Steps involved in contact tracing

Contact tracing for COVID-19 involves four key steps:

1

Contact identification: involves case investigation to identify all persons who have had the kind of contact with a confirmed case that means there is a possibility that they have been infected with the virus. Contacts are identified by asking about the case's activities and the activities and roles of the people around them from 2 days before to 14 days after symptoms onset. (See Section 5 for more detail)

2

Contact listing: involves registering all persons considered to have had contact with a confirmed case, informing them of their contact status and explaining what actions will follow. Contacts should be told of the importance of reporting any symptoms early so that early care can be given and provided with information about how to reduce the risk of passing on the disease.

3

Contact follow-up: can be active or passive, depending on the risk and resources. Passive monitoring involves providing information on recommendations such as what to do if unwell. Active monitoring involves requesting contacts to report their health status regularly, e.g. through text or phone call. Follow-up requires a relationship of trust between contact and tracer.

4

Contact discharge: involves removing contacts from the follow-up list when one of the following criteria is met:

- A contact finishes his/her 14 days of follow-up period.
- A contact becomes a case and moved to a case list.
- Subsequent investigation leads to the person being re-classified as a non-contact.
- Subsequent investigation leads to the linked case being reclassified as a non-case.

5 How Can Contacts be best Identified?

Case investigation

Contacts are identified during case investigation. Case investigators work with the patient, or their relatives if they are too unwell to speak, to determine when their symptoms began and who they have been in contact with from two days before symptom onset to 14 days after. Investigators can also ask to see the patient's mobile phone and to follow-up people the patient has messaged or called. Social media can help people remember where they have been and who they have been in contact with.

It may sometimes seem easier and less resource intensive to simply identify a whole group as contacts instead of precisely identifying individuals, however, it must be remembered that quarantine has a substantial impact on economic and social life. It is important to try to properly identify only those people with close contact according to the case definition. This will allow families and communities to better help each other.

It is important to clarify that a contact is not a suspect case, but a healthy person who may or may not have been infected, and that contacts are asked to collaborate with public health authorities for their own benefit (e.g. to help identify their own illness quickly if it occurs) and the benefit of the community, so that they do not infect others.

Identification of contacts from public spaces and transport

If the patient has recently used public transport or has been in busy public spaces, it can be difficult to individually identify close contacts. Where there are records of those who were present, these should be requested to determine who might be a contact. It is important to remember that proximity matters in the definition of a contact, and not all people present will be contacts. Trying to line-list everyone will put a strain on resources. In these situations, if individuals can be identified by their seat number, desk, bed, workspace or similar features, contact tracers should identify those who were within one metre of the case, and try to contact them.

Airport contact identification

Contacts cannot be identified using heat cameras or hand-held thermometers. These methods only identify people with active symptoms who might be cases. If a case is identified while fellow passengers are still on the plane, or in the airport area, airport authorities should:

- **Ensure that staff are well-briefed** on how to manage a passenger who becomes ill during a flight sensitively and calmly and they have the necessary equipment and can instruct other passengers on what will happen on landing.
- **On a flight where a person has become ill**, public health authorities should:
 - Obtain flight manifesto and collect contact details of all passengers, including seating position.
 - If the case is confirmed, passengers seated within two seats of the case in all directions should be identified and managed as contacts.
- **If a case is identified after disembarkation (i.e. at entry screening)**
 - Passengers seated within two seats of the case in all directions should be requested to make themselves known to public health officers so that their health can be monitored and to quarantine themselves for 14 days.
- **In the airport**
 - Ensure that additional COVID-19 controls in the airport do not cause passengers to crowd. Use barriers and tapes to promote orderly queuing.
 - Ensure enough airport and public health staff are available and that passengers are aware of any process of entry checks to reduce impatience.
 - Provide written advice to passengers to maintain safe distance as well as hand and cough hygiene.

6 Best Practice for Managing Contacts

a. Home quarantine

- Contacts should be requested to separate themselves in their homes for 14 days after having contact with a COVID-19 patient.
- If all household members are contacts, they can stay together in their home and interact.
- If contacts are individuals in a household where others are NOT contacts, they should separate themselves from each other in their home as much as possible and minimise risk of potential transmission through social distancing (e.g. avoid bed sharing and sharing of utensils and meals), and to practise hand and cough hygiene. This is because current knowledge suggests that people may be infectious before they develop symptoms, or even if they do not develop symptoms.
- In both situations, it is important to explain to contacts that the aim is to reduce the closeness of contact (>1 metre distancing); the duration of contact (<15 minutes in an enclosed space) and the number of times a person is in contact.



b. Essential healthcare workers

- If there is a limited number of human resources for healthcare during an outbreak, it may be extremely difficult to quarantine all healthcare workers who are contact for 14 days.
- When staff are considered as essential healthcare workers and are not presenting with any symptoms, they may report to work but must wear a medical mask anytime they are in contact with other colleagues or patients. While at the workplace, they will be required to undergo one physical examination each day to assess symptoms and check temperature at beginning of working shift. Based on workload at the workplace, it is recommended to assign the staff to other duties that require less interaction with colleagues and patients.
- Contacts who are essential healthcare workers should be confined at home during non-working hours, and while confined at their residence they should observe all infection prevention and control (IPC) measures.



c. Practical support

- **Supplies:** It is essential that people who are told to stay at home receive appropriate supplies to maintain a normal quality of life (food, water, fuel, schooling) from the community and/or the government to enable and support adherence to isolation. Failure to support people who stay at home will inevitably make them to leave their home (see also Livelihood Considerations below).
- **Social support:** In addition to physical support, communities should be advised on how to safely engage in social and faith activities with affected households. Finding safe ways for people to communicate, connect and demonstrate solidarity with quarantined households may make quarantine less stressful and support adherence.
- **Livelihood considerations:** Where the livelihoods of individuals are dependent on agricultural or pastoralist activities, under certain circumstances it may be desirable to engage community members who are not confined to their homes to help maintain farming activities for the quarantined individual(s). This should be managed carefully and in collaboration with social mobilisation and/or community engagement teams, and with the consent of the individuals under quarantine.



d. Testing of contacts

Contacts should be tested when they have any indication of COVID-19 symptoms. Contacts without symptoms should not be tested. This is because a negative test on a day does not mean the person is not infected and incubating transmissible virus. Current laboratory tests only indicate a positive result when the viral load reaches a certain level. This is also usually the level at which symptoms start to present.

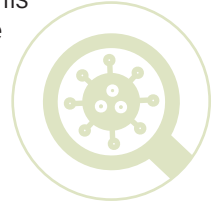
Testing contacts without symptoms drains resources. A negative test result or absence of symptoms will not change the advice given for a contact to stay at home for 14 days because it is possible that the person's infection is not yet mature enough to be captured by the test or produce symptoms. A negative test may give false reassurance and encourage a person to reduce adherence to quarantine and individual infection prevention measures.

Note: If rapid diagnostic tests that use finger prick or saliva become available that allow for daily testing, this advice should be reviewed.



e. Testing of exposed healthcare workers

Healthcare workers with any mild signs or symptoms of COVID-19 should be tested regardless of whether they have been listed as contacts. Public health authorities are advised to have this lower threshold for testing healthcare workers because they often have close contact with suspected and confirmed patients, even if they have been wearing personal protective equipment.

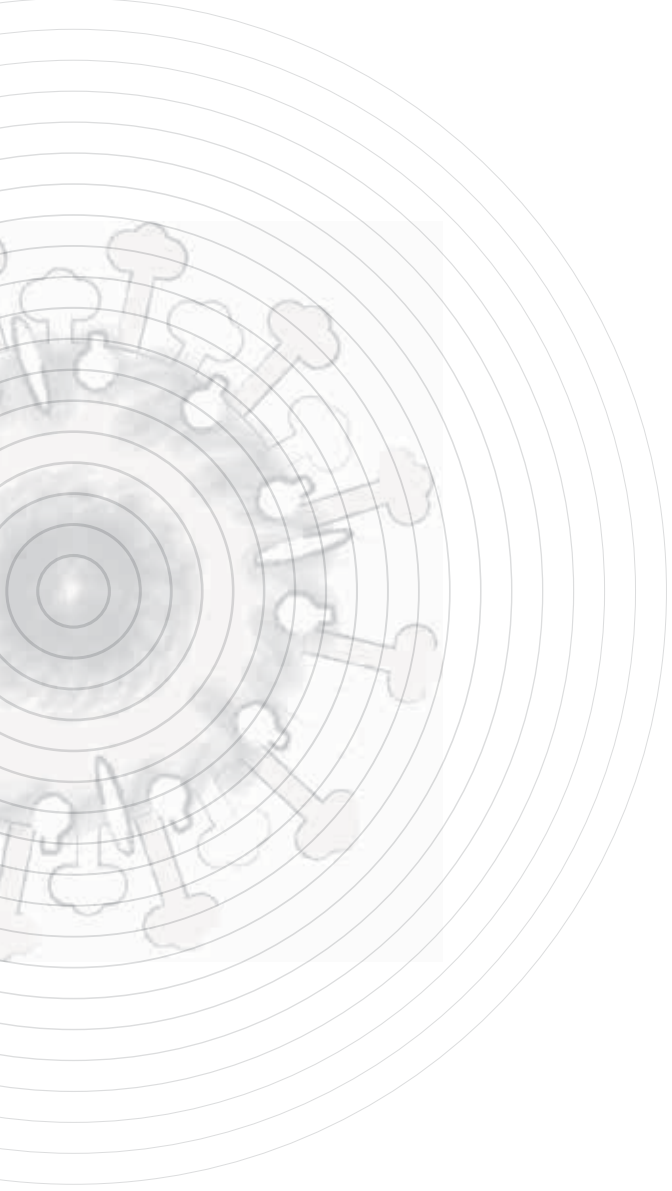


f. Facility quarantine

Some countries have established locations where contacts are taken to wait out their 14-day quarantine period. This may be done to save resources when there are limited cases (because fewer staff are needed to monitor contacts and other support such as food can be targeted), or to help enforce quarantine. However, it is not generally recommended because the detrimental effects of facility quarantine are likely to quickly outweigh any benefits. Such facilities can become sites of disease amplification, contributing to the growth of the epidemic.

Evidence shows that facility quarantine is often poorly accepted by communities. They may see facilities as places where COVID-19 is contracted, and people may avoid identifying as a contact if they believe they will be transferred to a quarantine facility. For these reasons, moving contacts to separate quarantine facilities is not recommended unless there are special circumstances, such as the return of a large group of individuals from an affected country.





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