World Health Organization

REGIONAL OFFICE FOR Africa

TECHNICAL GUIDANCE ON CONTACT TRACING FOR COVID-19 IN THE WORLD HEALTH ORGANIZATION (WHO) AFRICAN REGION

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1. INTRODUCTION

This document offers guidance to Member States in the African region on the key steps used to conduct contact tracing related to the COVID-19 response. It is to be used by national and local health authorities in the implementation of tracing of contacts of probable and confirmed COVID-19 cases. Member States are advised to be flexible in implementing this guidance according their different contexts including the local epidemiology of the pandemic and the control measures implemented including government restrictions and social distancing measures. Many of the lessons learned about best practice of contact tracing in previous Ebola Virus Disease (EVD) outbreaks formed the basis of this guidance* and it will continue to be reviewed periodically as more evidence about the novel disease emerges.

This technical guidance may be implemented in different settings with varying resources and epidemiological situations and should be adapted accordingly. It is intended to describe the COVID-19 specific components that are required to identify and monitor persons who have had contact with COVID-19 cases.

This document is informed by the current evidence available on the COVID-19 pandemic, including the estimated maximum incubation period of 14 days, an infectious period of up to 48 hours prior to presentation of symptoms and assumes that the main modes of transmission are via respiratory droplets and direct contact with infected persons or contaminated surfaces or objects. WHO will continue to update these recommendations as new information becomes available as there is an urgent need for a step-by-step guide to help field teams implement contact tracing in a practical manner in accordance to new evidence about COVID-19.

* Emergency Guidance on the Implementation and management of contact tracing for Ebola virus disease (accessed 13 April 2020) https://apps.who.int/iris/bitstream/handle/10665/185258/WHO_EVD_Guidance_Contact_15.1_eng.pdf;jsessionid=ACC74FC8BF3EB85FFA2B4FA8918246ED?sequence=1

2. OBJECTIVE OF CONTACT TRACING

The objective of contact tracing is to rapidly identify potential secondary cases infected by known primary cases and to promptly institute containment measures to prevent the onward spread of infection. This is to ultimately avoid continuous community spread in affected communities. This document provides operational guidance to Member States for the identification and monitoring of contacts following the confirmation of a COVID-19 case.

3. DEFINITIONS

3.1 COVID-19 Confirmed case

A person with laboratory confirmation of COVID-19 infection, irrespective of clinical signs and symptoms.

3.2 Probable case

A probable COVID-19 case is:

- A suspected case for whom testing for COVID-19 is inconclusive or who tested positive using a pan-coronavirus assay, and without laboratory evidence of other respiratory pathogens
- Any suspect case or death with epidemiologic link to confirmed cases.
- Any suspect case with typical appearance of COVID-19 in Chest Computed Tomography (CT) or chest x-rays.

Member States may consider adjusting the case definition in line with existing national guidelines, if different from the WHO definition of a probable case contained in this guideline.

3.3 Contact

A contact of a COVID-19 case is any person who has had contact with a confirmed or probable COVID-19 case during the 2 days before and the 14 days after the onset of symptoms. If COVID-19 was confirmed in an asymptomatic case, a contact is defined as any person who had contact with the case within 48 hours prior to the time at which the sample that tested positive for SARS-CoV2 was collected and the 14 days after the date on which the sample was taken that led to confirmation.

Depending on the level of exposure to a confirmed or probable case, contacts are categorized into low-risk or high-risk, as defined below.

a) High risk (close) contact

A person who has experienced any of the following exposures:

- Face-to-face contact with a probable or confirmed case within 1 meter 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;
- In an aircraft, sitting within two seats (in any direction) of the COVID-19 case, including travel companions or persons providing care, and crew members serving in the section of the aircraft where the index case was seated;
- Other situations as indicated by local risk assessments.

b) Low risk contact

A person who has experienced any of the following exposures:

- Face-to-face contact with a probable or confirmed case within 1 meter and for less than 15 minutes;
- In a closed environment with a known COVID-19 case for less than 15 minutes;
- Travelling together with a known COVID-19 case in any mode of transport;
- Direct care for a patient with probable or confirmed COVID-19 disease despite wearing proper personal protective equipment.

3.4 Contact tracing

Contact tracing is defined as the identification and follow-up of persons who meet the definition of a COVID-19 contact. Contact tracing is an important part of epidemiologic investigation and active surveillance of COVID-19. To break the COVID-19 chain of transmission, it is critical that all potential contacts of probable and confirmed COVID-19 cases are systemically identified, home quarantined and put under observation for 14 days (the maximum incubation period of SARS-CoV-2 virus) from the last day of contact.

4. ELEMENTS OF CONTACT TRACING

In line with best practices of contact tracing in previous EVD outbreaks as detailed in the WHO/CDC Emergency Guideline on the Implementation and management of contact tracing for Ebola virus disease, contact tracing is broken down into three basic elements, namely: contact identification, contact listing and contact follow-up. The three elements of contact tracing are described below.

4.1 Contact listing

As part of the investigation of any suspected case, the investigation team should establish a pre-list of contacts. The investigation team should therefore conduct interviews with the case and with people involved in the cases' routine activities.

The investigation team should develop a map of the path of the case from 48 hours prior to the onset of symptoms to time of his/her formal home quarantine or isolation. For asymptomatic cases, the investigation team should consider 48 hours prior to sample collection to time of his/her formal home quarantine. At each step of the path, people in contact with the case must be listed, including their address of residence, phone number and type of contact they had with the case. The contacts to be pre-listed may include close family members, friends, persons who cared for or had geographic proximity to the case, including health workers, neighbours and co-travelers.

Interview questions should aim to elicit the details of potential persons who came into contact with the case within the timeframe of infectivity including the following:

- People in direct physical contact;
- People who lived with the case;
- People who visited the case;
- All places the case visited including work, pharmacies, places of worship, markets, traditional healers etc.;

- All healthcare facilities visited by the case and all healthcare workers who attended to the case. If the case was a health worker, all the patients and colleagues in the healthcare facility should be identified;
- Anyone else who might have been exposed to the case who was not mentioned above.

For any identified contacts, their names, contact details including address and phone number should be collected. In instances where there are difficulties finding contacts, due to incomplete contact information (contacts without addresses, locations with no street names, incorrect names or use of nicknames, etc.), engaging community leaders in the search is recommended.

A sample Contact Listing Form is included in the annex of this document and may be used to list contacts. The information to be collected should include, but not be limited to:

- A unique ID should be given to each contact;
- Full name of the contact;
- Contact information including address and phone numbers;
- ID of the case linked to the contact;
- Relationship to the case;
- Type of contact in terms of risk;
- The date of last contact/interaction.

4.2 Contact identification

If the suspected case is classified as probable or confirmed COVID-19, the investigation team should finalize the list of contacts and proceed with their physical identification, together with the team in charge of contact tracing.

The team should meet each contact at his/her residence and provide detailed information about appropriate control measures, daily monitoring of symptoms and other precautionary measures including self-quarantine*, as well as the procedure of contact follow-up. It is recommended that the contact is given a leaflet with information on what to do and what not to do during the quarantine period, and the cell/telephone number to send and SMS to or to call for self-reporting.

Contact tracers should observe basic IPC measures to prevent contamination by wearing personal protective equipment (PPE), and ensuring social and physical distancing at all times during the visit. The PPE should be limited to a face mask, latex glove, and a disposable plastic apron (not a full hazmat suit).

The information that the contact tracer should provide to the contact includes:

- Ensuring physical and social distancing by staying away from other persons in the household as much as possible, ideally in an adequately ventilated, separate room with dedicated sanitary facilities.

* Considerations for quarantine of individuals in the context of containment for coronavirus disease (COVID-19): https://www.who.int/publications-detail/considerations-for-quarantine-of-individuals-in-the-context-of-containment-for-coronavirus-disease-(covid-19)

- Limiting access to visitors to only essential persons.
- Ensuring the practice of rigorous hand hygiene using soap and water or an alcohol-based hand gel and proper respiratory etiquette by covering mouth and nose with a disposable tissue or into the elbow or upper sleeve when the contact sneezes or coughs.
- Upholding minimum infection, prevention and control measures by cleaning high-touch surfaces with a disinfectant-containing wipe. These surfaces include doorknobs, tabletops, toilets, and phones. Also, thoroughly clean surfaces that have been contaminated with bodily fluids.

Where possible, the recommendations should be adhered to according to the living conditions of the contact. In many settings in the African region, instituting the recommendations can be challenging as many communities do not have the facilities for effective self-quarantine. In such settings, suggested measures include:

- Being the last to use shared sanitary facilities and immediately cleaning with disinfectants afterwards.
- Avoid using the same utensils for eating.
- Wearing a face mask whenever in the company of other persons.

The GPS coordinates of his/her location should be taken during the visit. A kit composed of soap, hand sanitizer, thermometer and masks should be given to each contact.

During the visit to each contact, the investigation and contact tracing team should comply with protective measures: wearing a surgical mask, cleaning hands with hand sanitizer before entering the contact residence, maintaining one to two meters distance from the contact at all times during the visit and ensuring not to touch frequently touched surfaces such as bedside tables, bedframes, and other bedroom furniture. Wash hands with soap and water or use hand sanitizer between each contact visit.

4.3 Contact follow-up

Each contact listed and identified should be assigned to a contact tracer for follow up during a 14-day period following the last contact with the case. It is recommended that the date of formal home quarantine or isolation of the case is considered as date of last contact for all contacts associated with a given case. A unique ID should be given to each contact.

Information to be collected during contact follow-up is aimed at showing the development of symptoms compatible with COVID-19. A contact follow-up form should be used to collect this information during each session. A sample of the contact tracing form is included in Annex 2.

Below is the suggested approach to be followed in contact tracing:

a) Self-reporting by the contact

The contact is advised to send an SMS to a specific number to provide daily information on his/her condition:

- Unique ID number _____
- Status _____
- Fever: _____ (Yes/No)
- Temperature: _____ (in degrees Celsius)
- Cough: _____ (Yes/No)
- Shortness of breath: _____ (Yes/No)
- Any other symptoms _____

For contacts complying with self-reporting, an unscheduled visit should be made once a week to confirm that the contact is doing well.

b) Follow-up by phone

Any contact who may not provide information on his conditions through the self-reporting mechanism should be called by the contact tracer to actively follow-up his/her condition. If a contact does not self-report over two consecutive days, a home visit should be automatically made the next day, even if phone contact has been made.

The information collected by phone is the same as that collected through self-reporting.

c) Home visits

Home visits are only made for contacts not complying with self-reporting and who are not reachable by phone.

During each visit, the contact tracing team will evaluate the health status of the contact through direct observation and questioning to elicit information about the development of symptoms.

During the visit to each contact, the contact tracer team should comply with protective measures: wear a surgical mask, clean hands with hand sanitizer before entering the contact residence, maintain a two-meters distance at all times during the visit and apply the no touch policy. Wash hands with soap and water or use hand sanitizer between each contact visit.

GUIDANCE FOR HOME QUARANTINE FOR CONTACTS

- Stay home. Do not go to work, school, or into public areas, including shops.
- Do not allow visitors and limit the number of people in your home.
- Separate yourself from others in your home (unless they are also in quarantine):
  - Stay in a specific room and keep away from other people in your home. It is very important to stay away from people who are at high risk of serious illness (including people over the age of 65, those with co-morbidities like diabetes, hypertension, HIV, TB, asthma etc.).
  - Use a separate bathroom, if available.
  - Stay 1 - 2 meters (approx. 6 feet) away from others.
  - Do not handle pets or other animals.
  - Do not prepare or serve food to others.
- Use a medical mask as soon as any symptoms appear and call the contact tracers immediately.

4.4. Contact discharge

Contacts should automatically be visited during the 14-day of follow-up. In the absence of any symptoms compatible with COVID-19, the low-risk contacts can be discharged from the contact follow-up process after the follow up period. High-risk contacts who complete the follow up period without developing symptoms should be tested for SARS-CoV2 on completion of the 14-days to limit the risk of asymptomatic transmission after discharge. No contact can be discharged from follow-up without having been seen and evaluated on the 14th day or later.

Contacts may also be discharged if during the follow-up process it is discovered and verified (by the Field Epidemiologist) that the individual did not have any COVID-19 exposure and was erroneously listed as a contact.

4.5. Managing contacts who develop symptoms

If a contact develops symptoms within 14 days of exposure, he/she should immediately observe self-isolation measures and contact the contact-tracing team, preferably through a phone call or in line with the recommendations of national authorities. The investigation team should assess the contact to determine if the case definition for COVID-19 is met and conduct a laboratory test as soon as possible. If the test is negative, follow up should be continued for the period of 14 days after exposure. If the test is positive, the contact should be considered as a case and contact tracing for contacts should be initiated (see Annex 3).

5. IMPLEMENTATION OF CONTACT TRACING

5.1. Human resources for contact tracing

Within the surveillance pillar, it is critical to designate a Senior Epidemiologist in charge of contact tracing. The role of the Senior Epidemiologist will be to coordinate contact tracing activities, including recruiting supervisors and contact tracing, setting up a mechanism of reviewing and validating lists of contacts, allocating contact tracers to supervisors and contacts to contact tracers, organizing the documentation of contact tracing as well as search of contacts lost to follow-up.

Ideally enroll 1 contact tracer for 10 contacts and 1 supervisor for 5 contact tracers.

The **Contact Tracing Supervisors** are responsible for ensuring that all contacts on the line list in their designated districts are closely monitored and appropriately assessed on a daily basis. They provide linkage between the contact tracers and the surveillance focal point.

The **Contact Tracers** are responsible for monitoring the contacts on a daily basis from the time of being identified as a contact until 14 days after their contact with a confirmed case. Contact tracers assess the general health status of individuals and ensure that those with symptoms are identified early to be tested.

National authorities could explore using international, national or local non-governmental organizations to implement contact tracing in some areas.

5.2. Contact tracing and transmission scenario*

The World Health Organization has defined four transmission scenarios for COVID-19:

- No Cases: Countries/territories/areas with no cases;
- Sporadic cases: Countries/territories/areas with one or more cases, imported or locally detected;

* https://www.who.int/publications-detail/critical-preparedness-readiness-and-response-actions-for-covid-19

- Clusters of cases: Countries/territories/areas experiencing cases, clustered in time, geographic location and/or by common exposures;
- Community transmission: Countries/area/territories experiencing larger outbreaks of local transmission defined through an assessment of factors including, but not limited to:
  - large numbers of cases not linkable to transmission chains;
  - large numbers of cases from sentinel lab surveillance;
  - multiple unrelated clusters in several areas of the country/territory/area.

Countries could experience one or more of these scenarios at the sub-national level and should adjust and tailor their approach to the local context.

It is critical to adapt the contact tracing strategy to the transmission scenario (table 1).

Transmission scenario	Recommendations for contact tracing
No case	• Contact of confirmed/probable cases from other countries of areas should be identified and followed. • Contacts should then be quarantined and traced according to the context of sporadic case.
Sporadic Cases	All contacts of confirmed and probable cases should be identified, quarantined and traced through phone calls and/or home visits.
Clusters of cases	All contacts of confirmed and probable cases should be identified, quarantined and traced through self-reporting, phone calls and/or home visits in case of failure to self-report.
Community transmission	All contacts of confirmed and probable cases should be identified, quarantined and traced through self-reporting, phone calls and/or home visits in case of failure to self-report. The national authorities could decide to continue tracing contacts only in newly infected areas and intensify active case finding in health facilities and communities

6. CONTACT TRACING DATA MANAGEMENT

Various tools are available for data management during contact follow-up to suit the needs and capacity in-country. In situations where physical home visits are not possible, remote methods can be used to conduct contact follow-up, including phone calls, text messages or any other modes of communication recommended by local authorities, including instant messaging via WhatsApp and other communication platforms.

Available mobile applications for COVID-19 contact tracing include:

- **Polio GIS platform for COVID 19 contact tracing:** the platform uses ODK to list contacts and record follow-up information. Data collection by contact tracers is made using phones with forms preloaded. The platform allows immediate archiving of data onto a centralized server and includes a dashboard.
- **Go.Data:** an electronic outbreak investigation tool for collection and management of field data during public health emergencies, designed to be used by WHO, the Global Outbreak Alert and Response Network (GOARN), Member States and partners. The tool is equipped with preloaded contact tracing forms, which allow for immediate archiving of data onto a centralized server. It helps epidemiologists to conduct contact tracing in a more effective and efficient way and makes it possible to conduct quick follow up of contacts, visualize chains of transmission and securely share data*.
- **Electronic data collection platforms like ODK Collect and Kobo Collect.** These applications also have the capacity for data collection forms to be preloaded. The data collected is sent to a central server where it can be exported as an excel or csv file for data analysis. WHO has developed questionnaires for contact listing and follow-up ready to be deployed using smartphones for COVID-19 contact tracing.
- **Contact tracing database on Excel:** data collection can also be collected manually using paper-based forms, collated in summary form and entered onto a simple management tool like Microsoft Excel. The sample data tools in the annex can be printed and used directly for this process.

Member States may choose to use the most suitable electronic tools available in country for contact tracing in accordance to national recommendations.

* http://outbreaktoolkits.rsis.afro.who.int/covid-19/

ANNEX 1: CONTACT LISTING FORM

Contact Listing Form (for Investigation Team)

FORM COMPLETED BY:	
NAME	TITLE
TEAM	TEL No

Case Information

CASE ID	SURNAME	OTHER NAMES	HEAD OF HOUSEHOLD	SYMPTOM ONSET

ADDRESS	TOWN	DISTRICT	LOCATION IDENTIFIED

Contacts Information

Contact ID.	Surname	Other Names	Head of Household	Sex (M/F)	Age (Y)	Relation to Case	Last contact with case	Address	Town	District	Telephone number	Health Worker (Y/N)	Facility Name (if Yes)

COMMENTS

ANNEX 2: CONTACT TRACING FORM

COVID-19 Daily Contact Follow-Up Form

Daily Contact Follow-Up Form (for Contact Follow-Up Teams)

Contact information

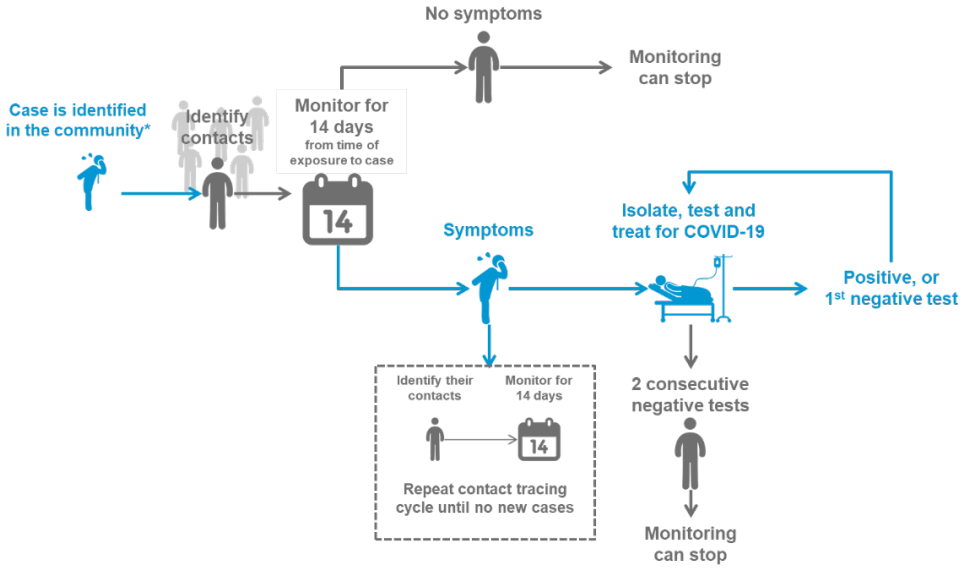
NAME	GENDER	AGE	DATE OF CASE CONTACT	FOLLOWED?	ADDRESS	TEL No
				Yes / No		

Instructions: For each day, evaluate the contact for the symptoms below and write "yes" if the contact has the symptom and "no" if the contact does not have the symptom. If a contact has any of the symptoms, immediately call the Supervisor at: _____.

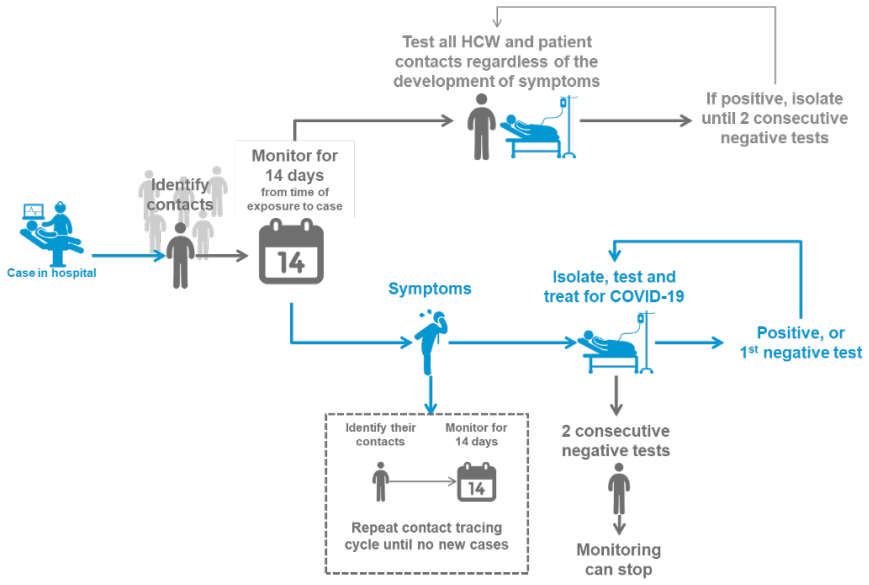
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Date														
Fever														
Sore Throat														
Runny Nose														
Cough														
Shortness of breath														
Other symptoms, specify:_____														

ANNEX 3: CONTACT TRACING IN THE COMMUNITY (A) AND IN HEALTH CARE SETTINGS (B)*

A



B



* https://www.who.int/publications-detail/considerations-in-the-investigation-of-cases-and-clusters-of-covid-19

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