



Standard Operating Procedure for COVID 19 Epi-Surveillance, Liberia

March 2020

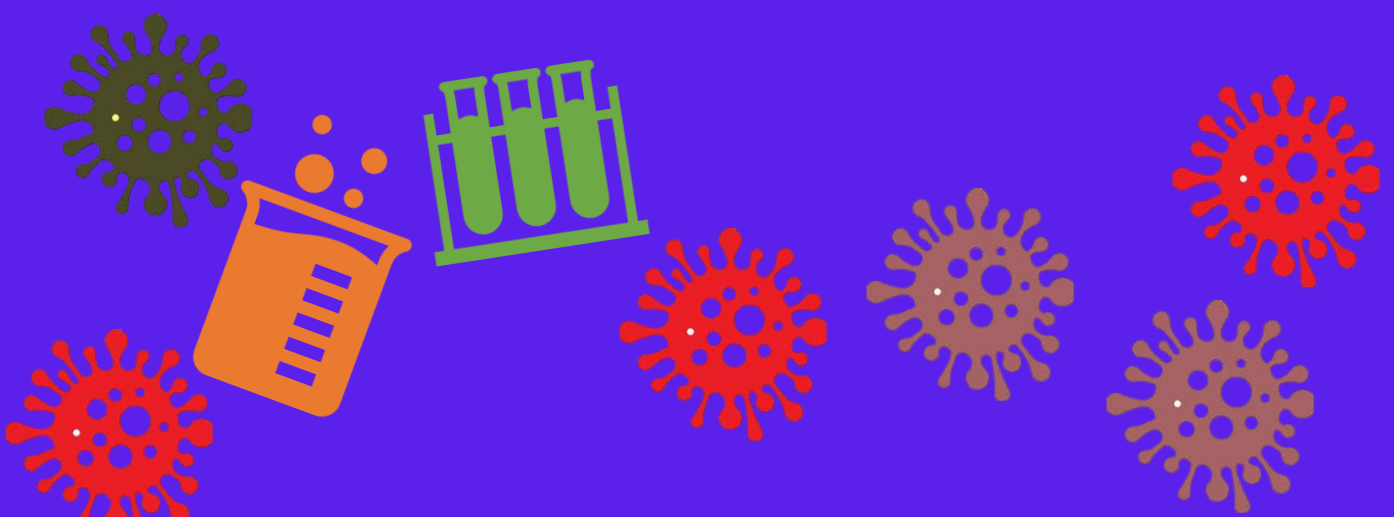


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Acknowledgement

This document has been developed/adapted as an interim version of the COVID-19 Standard Operating Procedure (SOP) for COVID-19 preparedness and response in Liberia by the National Public Health Institute and Ministry of Health with technical guidance from the World Health Organization and US. Centers for Disease Control and Prevention.

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How to use the SOP

Reporting sites in Liberia are areas of focus for disease detection, case management and response. They are an integral part of our public health system. This SOP gives step-by-step instructions and guidance for health workers to detect, report, investigate COVID-19/other respiratory illnesses, conduct contact tracing and maintain surveillance during the COVID-19 outbreak.

Each section provides details of key procedures that should occur within each of the core functions. Each section also references annexes, which provide, reporting templates, data collection and reporting forms, and other related instruments.

Purpose

This document outlines the standard operating procedures for epi-surveillance for COVID-19 in Liberia. The content of this document should inform national and county preparedness and response.

Counties are expected to use this SOP as a field reference guide for training, mentorship and supportive supervision.

NOTE: This is the second version and will be updated as need arises

What is new in this edition?

Updated case definitions; suspected, probable, confirmed

Revised definition of a contact

Updated steps in the surveillance cycle, including indicators

How to use the SOP

Epidemiology

On 31st December 2019, World Health Organization (WHO) was informed of 44 cases of pneumonia of unknown microbial etiology associated with Wuhan City, Hubei Province, China (1). Most of the cases in the outbreak reported a link to a large seafood and live animal market (Huanan South China Seafood Market) (1).

On 9th January 2020, WHO announced that a novel coronavirus that had not been previously identified in humans had been detected in samples taken from cases in Wuhan City. Laboratory tests ruled out SARS-CoV, MERS-CoV, influenza, avian influenza, and other common respiratory pathogens (2)(3). The WHO initially named the novel coronavirus 2019-nCoV and later renamed it SARS-CoV-2 when it was found to bear morphological semblance to SARS-CoV(4). On February 11, 2020, the WHO named the disease caused by SARS-CoV-2 as coronavirus disease or COVID-19 (5).

On 11th March 2020, WHO declared the outbreak a pandemic after it had affected over 118,000 people in over 110 countries and territories around the world (6). As at 26th March, 462,684 cases with 20834 deaths had been recorded across 197 countries and territories (Figure 1), representing a case fatality rate of 4.5%. According to current data, males, people aged over 60 years and people with co-morbidities have a higher risk of morbidity and mortality (7). The initial infection is believed to be zoonotic, but person to person transmission has been confirmed in community and healthcare settings and has led to the rapid spread across geographic borders through travel(8).

On 16th March 2020, Liberia recorded its first case of COVID-19 in a 46-year old Liberian who had returned from Switzerland (9).

Countries, areas or territories with COVID-19 cases reported in the last 7 days, as of 27 March 2020, 10:00 (CET)

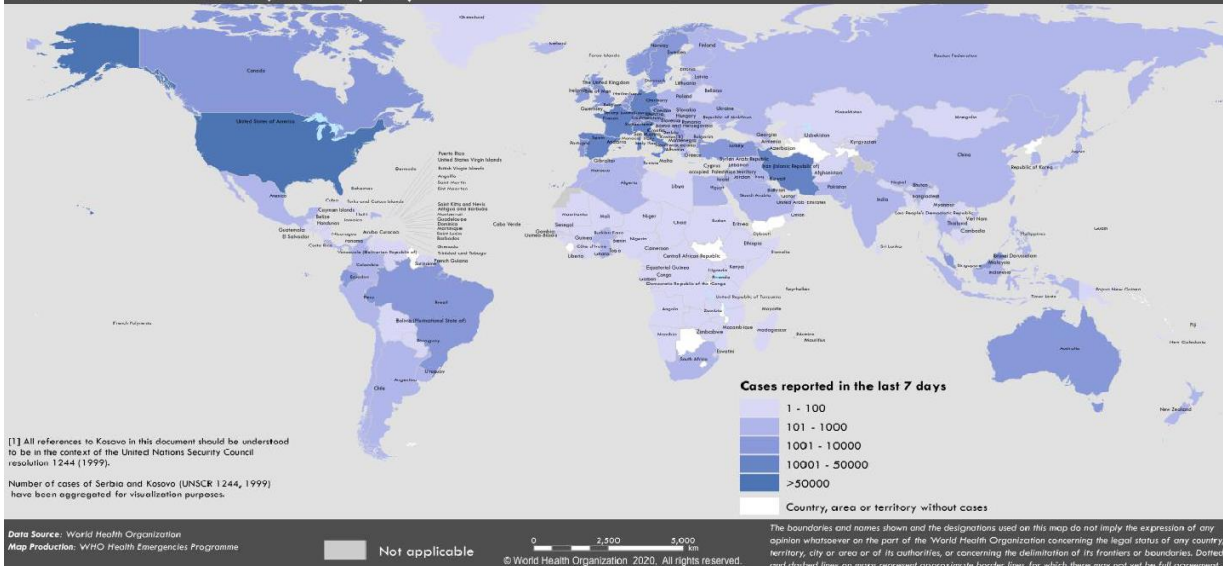


Figure 1: Countries, territories or areas with reported confirmed cases of COVID-19, 26 March 2020

Etiology

SARS-CoV-2 is a beta coronavirus (10). Coronaviruses are a large family of viruses, some of which cause illness in people (e.g., common cold, severe acute respiratory syndrome [SARS], Middle East respiratory syndrome [MERS]), and others that circulate among mammals and birds(10)(11). Rarely, animal coronaviruses can spread to humans, and then spread between people, as was the case with MERS and SARS(2). The virus has been found to be similar to SARS-like coronaviruses from bats, but it is distinct from SARS-CoV and MERS-CoV(10).

Morphologically, the viruses are large spherical particles with bulbous surface projections that form a corona around the particles in electron micrographs (Figure 2)(10) (11).

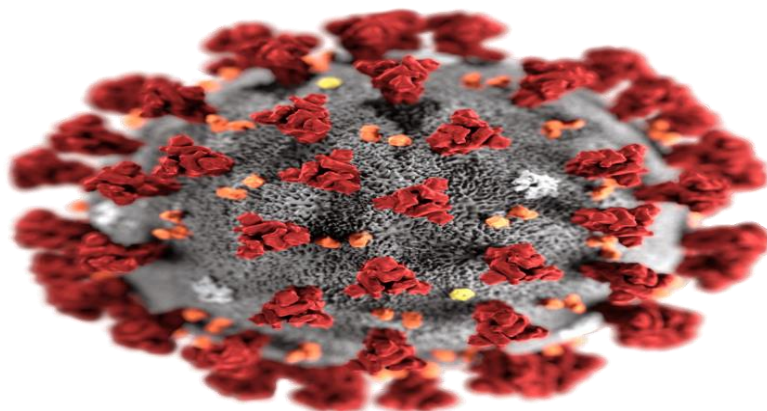


Figure 2: SARS-CoV-2

Clinical Features of COVID-19

Current estimates of the incubation period range from 2 to 14days, with an estimated median of 5.2 days (12). The clinical presentation greatly resembles viral pneumonia, and severity ranges from mild to severe. The majority of patients present with mild illness. Approximately 20% of cases progress to severe disease requiring hospitalization. Severe illness may be more likely in older people or those with underlying health conditions.

The most common symptoms are fever, cough, and shortness of breath (. Other less common symptoms include myalgia, fatigue, sputum production, confusion, headache, sore throat, runny nose, chest pain, , diarrhoea, and nausea/vomiting. Approximately 90% of patients present with more than one symptom, and 15% of patients present with fever, cough, and dyspnoea. Clinical presentations resemble SARS, but it appears that fewer patients have upper respiratory or gastrointestinal symptoms. Infected persons may be asymptomatic (13).

Approximately 33% of patients have complications such as acute respiratory distress syndrome, acute respiratory injury, septic shock, and acute renal injury(14) (13). Acute cardiac injury and secondary infections have also been reported. Unilateral lung infiltrates are found in 25% of patients, with bilateral lung infiltrates found in 75% of patients on chest x-ray or computed tomography(14) (15).

Molecular testing with real-time reverse-transcriptase polymerase chain reaction (RT-PCR) is required to confirm the diagnosis(16).

Surveillance

Surveillance Functions in this SOP

All levels of the Liberian health system are involved in conducting surveillance activities for detecting and responding to priority diseases and conditions. These activities comprise the following core functions:

- Step 1.** Identify cases and events by using the outbreak case definitions.
- Step 2.** Report suspected cases, conditions or events through the surveillance reporting structure
- Step 3.** Analyse and interpret data
- Step 4.** Investigate suspected cases or events for control and prevention.
- Step 5.** Prepare Rapid Response Team (RRT) to respond to COVID-19 cases
- Step 6.** Respond timely with all required resources.
- Step 7.** Provide feedback to all levels
- Step 8.** Evaluate and improve the system

Surveillance Procedures

Step 1: Identify cases and events by using the outbreak case definitions

Early recognition and rapid diagnosis are essential to prevent transmission and to provide supportive care in a timely manner and to break the chain of transmission.

Case Definitions

Case definitions adapted by Liberia will be disseminated for use at various levels (including the community and health facility). These case definitions are subject to change, based on evolving data on the disease. Changes will only be done and disseminated by the epi surveillance pillar.

These case definitions (Table 1) are based on WHO guidance on the first few confirmed cases of COVID-19 and their close contacts for the purpose of early case detection, reporting and investigation and are adopted for Liberia

Table 1: Case definitions*

Case definitions:

As of 20 March 2020, the case definitions for COVID-19 are as follows:

Simplified/Community Case Definition

Any person with hot skin, cough, not breathing well, and/or who has travelled from outbreak area OR who has taken care of sick person;

Suspected case:

Any person with acute respiratory illness (fever and at least one sign/symptom of respiratory disease, e.g., cough, shortness of breath), **AND** a history of travel to or residence in country or location reporting community transmission of COVID-19 disease during 14 days prior to symptom onset;

OR

A person with any acute respiratory illness **AND** having been in contact with a confirmed or probable COVID-19 case (see definition of contact) in the last 14 days prior to symptom onset;

OR

A person with severe acute respiratory illness (fever and at least one sign/symptom of respiratory disease, e.g., cough, shortness of breath; **AND** requiring hospitalization) **AND** in the absence of an alternative diagnosis that fully explains the clinical presentation;

Probable case:

A suspect case for whom testing for the COVID-19 virus is inconclusive;

OR

A suspect case for whom testing could not be performed for any reason

Confirmed case:

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

Epidemic threshold

One laboratory-confirmed case is an **OUTBREAK**

Further confirmed case definitions:

A: Index case: The case first detected, which alerts health authorities to the existence of an outbreak.

B: Primary case: A primary case is an individual who tests positive for COVID-19 and has the earliest onset date in a particular setting e.g. household, school, hospital etc.

C: Secondary case: A secondary case is a contact who becomes a case.

D: Imported case: An imported case is a case with a history of travel from an affected area in the 14 days before disease onset.

A: Index case: The case first detected, which alerts health authorities to the existence of an outbreak.

B: Primary case: A primary case is an individual who tests positive for COVID-19 and has the earliest onset date in a particular setting e.g. household, school, hospital etc.

C: Secondary case: A secondary case is a contact who becomes a case.

D: Imported case: An imported case is a case with a history of travel from an affected area in the 14 days before disease onset.

Contact Tracing

Definition of Contacts

"A contact is a person who experienced any one of the following exposures during the 2 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 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; Or other situations as indicated by local risk assessments;

Contact tracing should commence immediately at the following instances;

- when a case of COVID-19 has been confirmed OR
- when a contact who is being monitored becomes symptomatic within 14 days of last contact with a confirmed case, even while confirmation is awaited

Effective contact tracing entails the following;

- Thorough case investigation which provides information for contact identification and listing
- Contact classification
- Contact follow-up or monitoring

Case Investigation for Contact Identification and Listing

A thorough case investigation is done to identify the source of infection and identify contacts. Every effort should be made to include all contacts, including infants and children of the case to generate the specimen and data sampling time frame for follow-up.

Identification of the contacts is done through interrogating the activities of the case or the activities and roles of the people around the case since onset of symptoms. Contacts can include household members, other family contacts, visitors, neighbours, colleagues, teachers, classmates, co-workers, social or health workers, and members of a social group.

Information can be obtained from the case and a great deal of information will come from people around the case. If the case has died, contact tracing team should visit home/health facility of the deceased to carry out contact investigation.

A **case-based form** (Annex 1) should be filled out and all contacts of symptomatic suspected, probable and confirmed cases should be systemically identified and listed in the **contact listing form** (Annex 2).

Contact Classification

Each contact should be assigned a category using the criteria as described in Table 2 below.

It is important to correctly classify every contact so that the right follow-up actions are taken.

Once a contact is classified as a high risk, all efforts should be made to physically follow up and quarantine that contact **within 24 hours** of identification and listing. High risk contacts are categorized as "close contact". Close contacts may be further categorized as "social or health care worker contact" or "household or closed setting contact".

Table 2: Definitions for Contacts Classification

Contact definitions:
HIGH RISK CONTACTS (Require institutional quarantine)
<p>Close contact "Any person who had contact with a probable or confirmed case within 1 meter and for more than 15 minutes;"</p>
Further Close Contact Classification
<p>Social and health care workers contact "Any social or health care worker, who provided direct personal or clinical care, or examination of a symptomatic confirmed case of COVID-19 or within the same indoor space, when an aerosol generating procedure was implemented without appropriate PPE (Please use IPC classification of high risk for healthcare workers)</p>
<p>Household (or closed setting) contact: Any person who has resided in the same household (or other closed setting) with a confirmed COVID-19 case</p>
LOW RISK CONTACTS (self-quarantine)
Any person who is a contact of a contact
Any person who shares a confined area beyond 3metres (9ft) of the confirmed COVID-19 case

Contact Monitoring

All contacts should be monitored for 14 days (the maximum incubation period of COVID-19) from the last day of contact with the case (**Figure 3**). The contact monitoring team should be responsible for informing the contacts of their status.

Team composition: Surveillance Officer/ Contact Tracer, Psychosocial

High risk Contact Monitoring:

High risk contacts should be monitored twice daily physically. Findings should be recorded on the Contact Monitoring Form (Annex 3)

During the monitoring of a high-risk contact, the contact monitoring officer should

- Wear a facial mask correctly for each visit
- Stand at least 3 meters (9 ft) away from the contact in an open space (avoid enclosed environment)
- Ask about any symptoms (fever, cough, difficult breathing, any other)
 - if there are any reported symptoms document and liaise with the supervisor to **inform case management for immediate evacuation to isolation center**
 - If there are no reported symptoms take and record the contact's temperature (Use a thermo scan) standing on the side of the contact with the contact looking away from the contact monitor.

Low risk contact monitoring

Low risk contacts can be reached physically once daily. Findings should be recorded on the Contact Monitoring Form (Annex 3)

- Ask about any symptoms (fever, cough, difficult breathing, any other)
 - if there are any reported symptoms document and liaise with the supervisor to **inform case management for immediate evacuation to isolation center**
 - If there are no reported symptoms take and record the contact's temperature (Use a thermo scan) standing on the side of the contact with the contact looking away from the contact monitor.
- Advise contacts to:
 - Avoid social gatherings and close physical contact
 - Avoid travel
 - Remain reachable for monitoring
- **NOTE:** If a Contact 'A' becomes a confirmed case, those who were previously classified as "low-risk" on account of being a contact of Contact 'A' should be immediately reclassified.

Contact tracing in the community (A) and in health care settings (B)

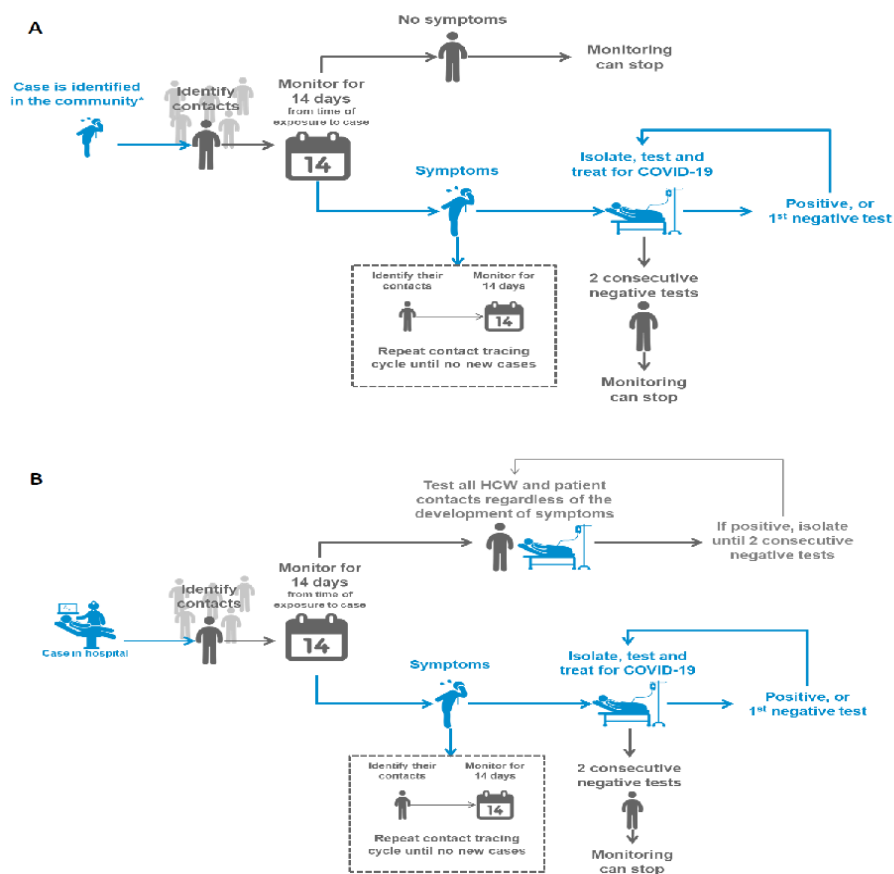


Figure 3: Contacts Tracing Flow Chart for Community and Health Facility

Active case finding and reporting

Community Level

Active case finding and reporting from the community should be on-going until the NPHIL declares otherwise.

Community Health Workers and community members can use the community case definition to identify a suspected case (a trigger). If the person meets the community case definition, the following steps should be taken:

Encourage self-reporting by calling 4455 or the county hotline or inform the community informant (CHA/gCHVs)

Community alerts should be verified by proximal health facility

Health facility will follow the process flow-chart as outlined in Figure 2.

Health Facilities

All health facility staff should be trained to know the case definition and have a high index of suspicion for COVID-19. Effective triaging should be done at all health facilities to ensure that possible COVID-19 cases are quickly identified and isolated from other hospital staff and attendants. Each health facility must prepare an isolation room or space. If the person who reports at a health facility meets the case definition, the following steps should be taken:

Isolate the suspected case

Provide the suspected case with face mask

Health facility will follow the process flow-chart as outlined in Figure 2.

Rumor Management

Any rumor of a suspected COVID-19 case or contact reported through 4455 or through any other means must be investigated by a health worker.

Whoever receives the rumor must report it to 4455 or to the head of surveillance at that level for further instructions.

Step 2: Report suspected cases, conditions or events to the next level through the surveillance reporting structure

A suspected case of COVID-19 may be identified at various levels of the health system; points of entry, community, healthcare facility, district, county, and national.

Reporting to the next level must be done immediately once a COVID-19 case is suspected via phone call and followed by a form of documentation, preferably e-mail.

A case investigation form (Annex _) should be filled and the case added to the line list of suspected or confirmed COVID-19 cases

The overarching process flow for reporting of suspected COVID-19 cases is described in Figure 3.

It indicates actions to be taken by surveillance officers at the various levels.

The purpose of reporting cases is for information sharing for appropriate follow-up actions which may include the following;

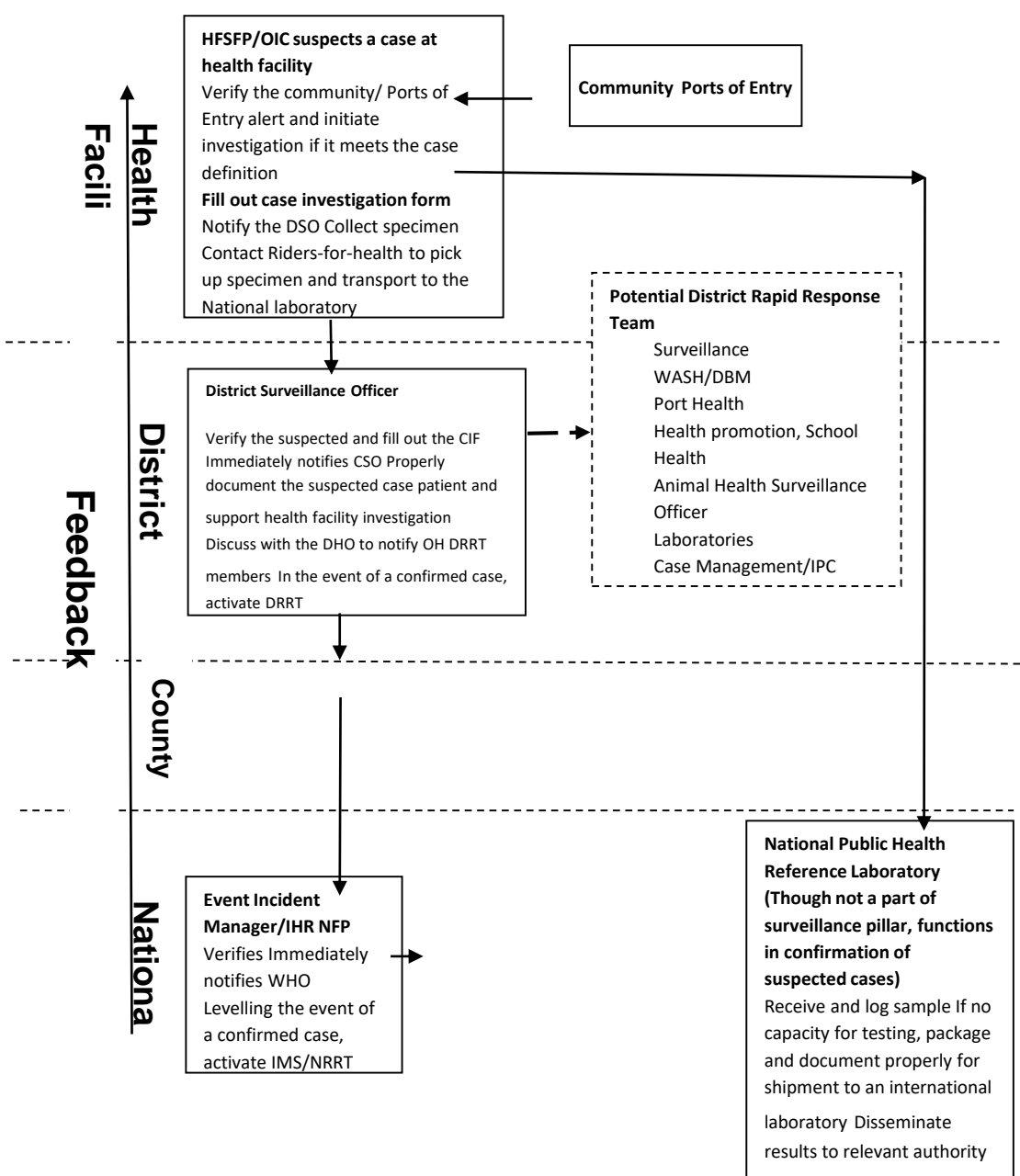
Laboratory testing for confirmation or otherwise (Surveillance pillar links with laboratory pillar)

Only the IMS Chair or Epi Surveillance pillar lead can authorize a request for laboratory confirmation at the National Public Health Reference Laboratory (NPHRL)

When a sample is taken for laboratory confirmation, NPHRL Lab pillar lead will release the result through the IMS Chair or the Epi Surveillance pillar lead to the county that reported the case.

Case management of confirmed cases (surveillance pillar links with case management pillar)

Contact tracing (carried out by surveillance pillar) – described above under Step 1: “case Detection”



Step 3: Analyse and interpret Data

Data must be carefully gathered, analysed and interpreted to guide appropriate response actions.

Each jurisdiction (point of entry, community, health facility, district, county, national) must have the following information summarized by reporting units and displayed as appropriate (use acronyms to shield individual case identity when displaying data. These include

- Total number of suspected cases, new cases by day/by week
- Total number of confirmed cases by sex, age, community, new confirmed by day/week
- Total number of cases in isolation
- Total number of cases discharged
- Number of secondary cases per confirmed case
- Number of contacts per case, number under follow up, number seen by day, number that have completed 14 days follow-up
- Attack rate
- Mortality rate
- Recovery rate
- Trend graph of the outbreak, showing intervention points
- Map showing distribution of cases by location

Step 4. Investigate suspected cases or events

The results of the investigation of a suspected COVID-19 case or related event leads to the identification and assessment of people who have been exposed to the infectious disease or affected by an unusual health event. The investigation team gathers relevant information for taking immediate action to prevent further morbidity and mortality and for improving long-term disease prevention activities.

The investigation of a suspected outbreak characterizes the outbreak and provides evidence for the appropriate response. Investigating the factors associated with a health event is an ongoing process that continues during the response to refine and evaluate the public health activities.

The following are steps in investigating a suspected outbreak of COVID-19.

- Prepare for field work
- Establish the existence of an outbreak
- Verify the diagnosis
- Construct a working case definition
- Find cases systematically and record information
- Perform descriptive epidemiology
- Develop hypotheses
- Evaluate hypotheses epidemiologically
- As necessary, reconsider, refine, and re-evaluate hypotheses
- Compare and reconcile with laboratory and/or environmental studies
- Implement control and prevention measures
- Initiate or maintain surveillance
- Communicate findings

Step 6. Respond to COVID-19 Outbreaks

The results of the investigation should guide the response. Successful responses are carried out with community involvement and often include a community education and behaviour change component. The Rapid Response Teams (RRTs) at national or sub national levels will be needed to implement these responses.

When responding to COVID-19 outbreak the steps include the following:

- declaring an outbreak and convening incident management system,
- mobilizing response teams for immediate action,
- implementing response activities,
- outbreak reporting, and
- documenting the response.

When an alert threshold is reached at county level, the national level should be notified. At this preliminary stage (still at alert threshold) the national level response may be minimum; verification, monitoring and when necessary providing county support including resource mobilization. The IMS will be in a state of alertness; prepared to be activated at any given time if required. When a COVID-19 outbreak is declared the established County or National RRTs are switched into response mode and the IMS is activated.

Step 7. Provide feedback to all levels

Feedback should be provided to all levels through rapid and complete communication about the investigation outcome and success of response efforts that encourages future cooperation. Epi surveillance pillar members at all levels should endeavour to communicate with the pillar lead who communicates with other pillar leads or designates. Pillar members should refrain from creating confusing communication channels across pillars Pillar leads at all levels should provide prompt feedback to members Daily pillar meetings at each level handling at least a confirmed case is encouraged (National, County, District, Facility). Communication must be evidence-based

Step 8. Evaluate and improve the system

The effectiveness of the surveillance and response systems should be assessed so action can be taken to improve the system.

NPHIL DIDE will lead the process of providing national indicators and targets periodically to follow the outcome of surveillance and response activities. Surveillance teams at various levels should work towards these targets as appropriate. These indicators could include;

- Timeliness and completeness of reporting

- Proportion of cases investigated and responded to within 24 – 48 hours

- Proportion of contacts followed up

- Proportion of high-risk contacts tested within 24 hours

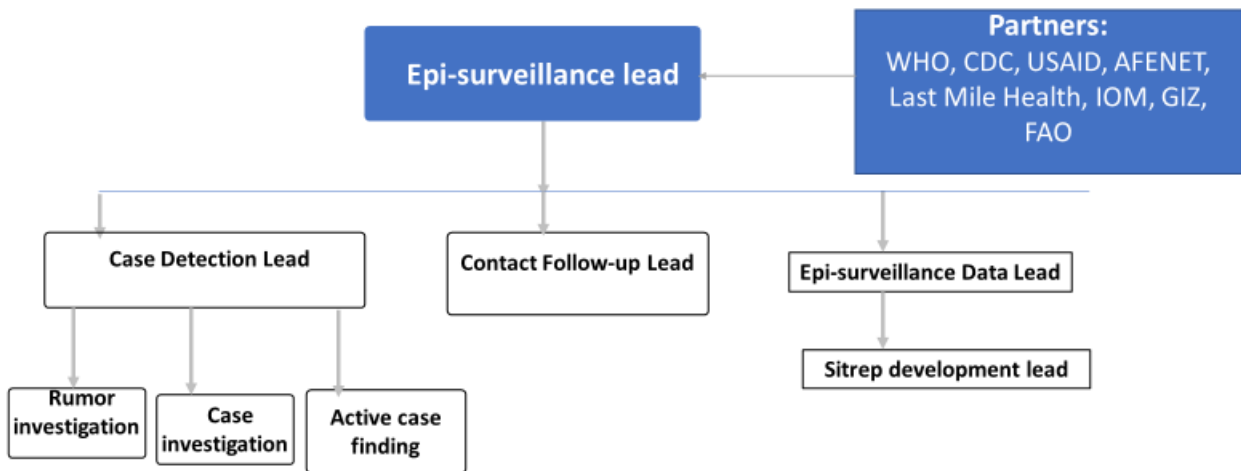
- Proportion of samples meeting Laboratory turnaround time for COVID-19 testing

- Proportion of high-risk contacts lost to follow-up

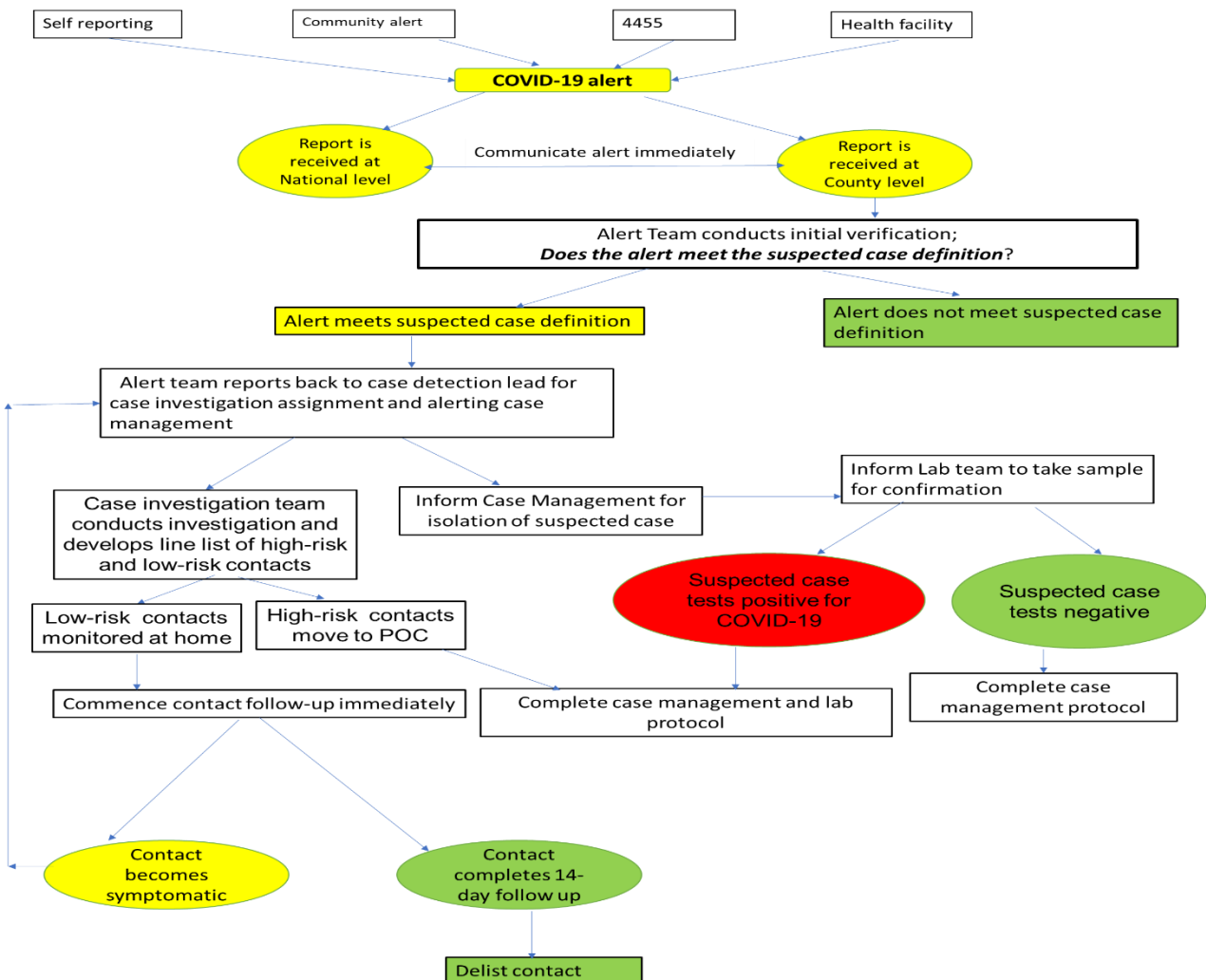
- Proportion of counties/districts with local transmission

Note: When targets are not being met, leaders should investigate, and address challenges and concerns promptly.

Annex 1: Epi-surveillance response organogram



Flow chart for responding to COVID-19 alerts, Epi-surveillance COVID-19 response, Liberia, April 2, 2020



Annex 2: Case investigation form

Form A0: Minimum data reporting form – for suspected and probable cases

Unique Case ID / Cluster Number (if applicable):

1. Current Status

Alive Dead

2. Data Collector Information

Name of data collector	
Data collector Institution	
Data collector telephone number	
Email	
Form completion date (dd/mm/yyyy)	___/___/___

3a. Case Identifier Information

Given name(s)	
Family name	
Sex	<input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Not known
Date of Birth (dd/mm/yyyy)	___/___/___ <input type="checkbox"/> Unknown
Telephone (mobile) number	
Age (years, months)	___ years ___ months <input type="checkbox"/> Unknown
Email	
Address	
National social number/ identifier (if applicable)	
Country of residence	
Case status	<input type="checkbox"/> Suspected <input type="checkbox"/> Probable <input type="checkbox"/> Confirmed

3b. Interview respondent information (if the persons providing the information is not the patient)

First name	
Surname	
Sex	<input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Not known
Date of Birth (dd/mm/yyyy)	___/___/___
Relationship to patient	
Respondent address	
Telephone (mobile) number	

4. Patient symptoms (from disease onset)

Date of first symptom onset (dd/mm/yyyy)	___/___/___ <input type="checkbox"/> No symptoms <input type="checkbox"/> Unknown
Fever (≥ 38 °C) or history of fever	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Sore throat	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Runny nose	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Cough	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Shortness of Breath	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown

5. Initial respiratory sample collection

Date respiratory sample collected (dd/mm/yyyy)	___/___/___ <input type="checkbox"/> NA
What type of respiratory sample was collected?	<input type="checkbox"/> Nasal swab <input type="checkbox"/> Throat swab <input type="checkbox"/> Nasopharyngeal swab <input type="checkbox"/> Other, specify
Has baseline serum been taken?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If yes, date baseline serum taken (dd/mm/yyyy) ___/___/___
Were other samples collected?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If yes, which samples: If yes, date baseline serum taken (dd/mm/yyyy) ___/___/___

6. Clinical Course: Complications

Hospitalization required?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If yes, name of hospital
ICU (Intensive Care Unit) admission required	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Acute Respiratory Distress Syndrome (ARDS)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Pneumonia by chest X-ray	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not applicable (no X-ray performed) <input type="checkbox"/> Date ___/___/___
Other severe or life-threatening illness suggesting of an infective process	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If yes, specify:
Mechanical ventilation required	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Extracorporeal membrane oxygenation (EMO)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown

7. Human exposures in the 14 days before illness onset

<p>Have you travelled within the last 14 days domestically?</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown</p> <p>If Yes, dates of travel (DD/MM/YYYY): ___/___/___ to ___/___/___</p> <p>Reg ion s: Citi es visi ted :</p>
<p>Have you travelled within the last 14 days internationally?</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown</p> <p>If Yes, dates of travel (DD/MM/YYYY): ___/___/___ to ___/___/___</p> <p>Countries visited:</p>

	<p>Cities visited:</p>
<p>In the past 14 days, have you had contact with a anyone with suspected or confirmed 2019-nCoV infection?</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown</p> <p>If Yes, dates of last contact (DD/MM/YYYY): ___/___/___</p>
<p>Patient attended festival or mass gathering</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If yes, specify:</p>
<p>Patient exposed to person with similar illness</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown</p>
<p>Location of exposure</p>	<p><input type="checkbox"/> Home <input type="checkbox"/> Hospital <input type="checkbox"/> Workplace <input type="checkbox"/> Tour group <input type="checkbox"/> Unknown <input type="checkbox"/> Other, specify:</p>
<p>Patient visited or was admitted to inpatient health facility</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If yes, specify:</p>
<p>Patient visited outpatient treatment facility</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If yes, specify:</p>
<p>Patient visited traditional healer</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If yes, specify type:</p>
<p>Patient occupation (specify location/facility)</p>	<p><input type="checkbox"/> Health care worker <input type="checkbox"/> Working with animals <input type="checkbox"/> Health laboratory worker <input type="checkbox"/> Student <input type="checkbox"/> Other, specify: For each occupation, please specify location or facility:</p>

8. Status of form completion

<p>Form completed <input type="checkbox"/> Yes <input type="checkbox"/> No or partially</p>	<p>If no r partially, reason : <input type="checkbox"/> Missed <input type="checkbox"/> Not attempted <input type="checkbox"/> Not performed <input type="checkbox"/> Refusal <input type="checkbox"/> Other, specific:</p>
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The First Few X (FFX): Cases and contact investigation protocol for 2019-novel coronavirus (2019-nCoV) infection

*Form A1: Case initial report form – for confirmed cases
(Day 1)*

COMMENT: Information in this form may already have been completed in the Case Minimum Data Reporting Form (Form A0). It is therefore not necessary to repeat any data in these sections that has already been completed.

Unique Case ID / Cluster Number (if applicable):

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1. Current Status

Alive Dead

2. Further case classification

Primary Secondary Imported

3. Data Collector Information

Name of data collector	
Data collector Institution	
Data collector telephone number	
Email	
Form completion date (dd/mm/yyyy)	__/__/__

4. Interview respondent information (if the persons providing the information is not the patient)

First name	
Surname	
Sex	<input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Not known
Date of Birth (dd/mm/yyyy)	__/__/__
Relationship to patient	
Respondent address	
Telephone (mobile) number	

5. Patient Identifier Information

First name	
Surname	
Sex	<input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Not known
Date of Birth (dd/mm/yyyy)	__/__/__
Telephone (mobile) number	
Age (years, months)	
Email	
Address	
National social number/ identifier (if applicable)	
Country of residence	
Nationality	
Ethnicity (optional)	

Responsible Health Centre	
Nursery/School/College if appropriate	

6. Health care center/ treating physicians details	
Name	
Practice name	
Is this case part of an institutional outbreak?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If yes, specify:
Telephone number	
Fax	
Address	

7a. Patient symptoms from onset of symptoms	
Date of first symptom onset (dd/mm/yyyy)	___/___/___ <input type="checkbox"/> Asymptomatic <input type="checkbox"/> Unknown
Fever (≥ 38 °C) or history of fever	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If yes, specify maximum temperature:
Date of first health facility visit (including traditional care) (dd/mm/yyyy)	___/___/___ <input type="checkbox"/> NA <input type="checkbox"/> Unknown
Total health facilities visited to date	<input type="checkbox"/> NA <input type="checkbox"/> Unknown Specify:

7b. Respiratory symptoms	
Sore throat	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If Yes, date (dd/mm/yyyy): ___/___/___
Cough	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If Yes, date (dd/mm/yyyy): ___/___/___
Runny nose	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Shortness of breath	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If Yes, date (dd/mm/yyyy): ___/___/___

7c. Other symptoms	
Chills	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Vomiting	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Nausea	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Diarrhea	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Headache	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Rash	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Conjunctivitis	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Muscle aches	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Joint ache	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Loss of appetite	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Nose bleed	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Fatigue	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Seizures	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Altered consciousness	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Neurological signs	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown

If Yes, specify	
Other symptoms	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If yes, specify:

8. Patient symptoms: Complications	
Hospitalization	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Date of first hospitalization	___/___/___ <input type="checkbox"/> Unknown
ICU (Intensive Care Unit) Admission	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Date of ICU admission (dd/mm/yyyy)	___/___/___ <input type="checkbox"/> Unknown
Date of discharge from ICU (dd/mm/yyyy)	___/___/___ <input type="checkbox"/> Unknown <input type="checkbox"/> NA
Mechanical ventilation	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Dates of mechanical ventilation (dd/mm/yyyy)	Start: ___/___/___ Stop: ___/___/___ <input type="checkbox"/> Unknown <input type="checkbox"/> NA
Length of ventilation (days)	
Acute Respiratory Distress Syndrome (ARDS)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If yes, date started (dd/mm/yyyy) ___/___/___
Acute renal failure	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If yes, date started (dd/mm/yyyy) ___/___/___
Cardiac failure	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If yes, date started (dd/mm/yyyy) ___/___/___
Consumptive coagulopathy	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If yes, date started (dd/mm/yyyy) ___/___/___
Pneumonia by chest X-ray	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If yes, date started (dd/mm/yyyy) ___/___/___
Other symptoms	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If yes, specify:
Extracorporeal membrane oxygenation (EMO) required	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Hypotension requiring vasopressors	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Date of discharge from hospital (if applicable) (dd/mm/yyyy)	___/___/___
Outcome	<input type="checkbox"/> Alive <input type="checkbox"/> Died <input type="checkbox"/> NA <input type="checkbox"/> Unknown
Outcome current as of date (dd/mm/yyyy)	___/___/___ <input type="checkbox"/> Unknown <input type="checkbox"/> NA

9. Patient pre-existing condition(s)	
Obesity	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Cancer	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Diabetes	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
HIV/other immune deficiency	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Heart disease	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Asthma (requiring medication)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Chronic lung disease (non-asthma)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Chronic liver disease	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown

Chronic haematological disorder	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Pregnancy	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If yes, specify trimester: <input type="checkbox"/> First <input type="checkbox"/> Second <input type="checkbox"/> Third <input type="checkbox"/> NA Estimated delivery date (dd/mm/yyyy) /___/_____ _____
Chronic kidney disease	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Chronic neurological impairment/disease	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Organ or bone marrow recipient	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Other pre-existing condition(s)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If yes, specify:
10. Health care interactions	
Contact with emergency number	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Date of emergency contact (dd/mm/yyyy)	___/___/___ <input type="checkbox"/> Unknown
Visit to primary health care PHC (GP, etc) (repeat for as many visits as required)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Date of first PHC contact (dd/mm/yyyy)	___/___/___ <input type="checkbox"/> Unknown <input type="checkbox"/> NA
Visited Emergency Department (A&E) (repeat for as many contacts as required)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
Date of first A&E contact (dd/mm/yyyy)	___/___/___ <input type="checkbox"/> Unknown <input type="checkbox"/> NA
Hospitalisation (repeat for as many admissions as required)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown Skip rest of form 11 if no
Date of first admission to hospital (dd/mm/yyyy)	___/___/___ <input type="checkbox"/> Unknown <input type="checkbox"/> NA
Name and place of first hospital	

11. Human exposures in the 14 days before illness onset

<p>Have you travelled within the last 14 days domestically?</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown</p> <p>If Yes, dates of travel (DD/MM/YYYY): ___/___/___ to ___/___/___</p> <p>Regions: Cities visited: ed:</p>
<p>Have you travelled within the last 14 days internationally?</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown</p> <p>If Yes, dates of travel (DD/MM/YYYY): ___/___/___ to ___/___/___</p> <p>Countries visited: Cities visited:</p>
<p>In the past 14 days, have you had contact with a anyone with suspected or confirmed 2019-nCoV infection?</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown</p> <p>If Yes, dates of last contact (DD/MM/YYYY): ___/___/___</p>

<p>Patient attended festival or mass gathering</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If yes, specify:</p>
<p>Patient exposed to person with similar illness</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown</p>
<p>Location of exposure</p>	<p><input type="checkbox"/> Home <input type="checkbox"/> Hospital <input type="checkbox"/> Workplace <input type="checkbox"/> Tour group <input type="checkbox"/> School <input type="checkbox"/> Unknown <input type="checkbox"/> Other, specify:</p>
<p>Patient visited or was admitted to inpatient health facility</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If yes, specify:</p>
<p>Patient visited outpatient treatment facility</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If yes, specify:</p>
<p>Patient visited traditional healer</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown If yes, specify type:</p>
<p>Patient occupation (specify location/facility)</p>	<p><input type="checkbox"/> Health care worker <input type="checkbox"/> Working with animals <input type="checkbox"/> Health laboratory worker <input type="checkbox"/> Student <input type="checkbox"/> Other, specify: For each occupation, please specify location or facility: _____</p>

Annex 2: COVID-19 Contact Linelist

Complete a contact line list for every case under investigation and every confirmed case

Details of case under investigation/confirmed case		
IDSR Case ID	Date Symptom Onset	DD/MM/YYYY
Surname	Name	
For cases who travelled long-distance (>2 hours in public transport) in the past 14 days		
Air/buss line	Flight/bus #	Sea t #

Details of health official completing this form	Today's date	DD/MM/YYYY
Surname	Name	
Role	Facility name	
Email addresses	Telephone number	

Details of contacts (*With close contact* 14 days prior to symptom onset, or during symptomatic illness. Add rows if necessary.*)

Surname	First name(s)	Sex (M/F)	Age (Y)	Relation to case	Date of last contact with case	Place of last contact with case (Provide name and address)	Residential address (for next month)	Phone number(s), separate by semicolon	Alternate contact person and phone detail	HCW*? (Y/N) <i>If Yes, facility name</i>
					DD/MM/YYYY					
					DD/MM/YYYY					
					DD/MM/YYYY					
					DD/MM/YYYY					
					DD/MM/YYYY					
					DD/MM/YYYY					
					DD/MM/YYYY					
					DD/MM/YYYY					
					DD/MM/YYYY					
					DD/MM/YYYY					
					DD/MM/YYYY					

*Close contact is defined as: healthcare-associated exposure, including providing direct care for nCoV patients, working with healthcare workers infected with nCoV, visiting patients or staying in the same close environment of a nCoV patient. This could also be defined as a healthcare worker working together in close proximity, sharing the same classroom environment with a nCoV patient, traveling together with nCoV patient in any kind of conveyance or living in the same household as a nCoV patient. **Healthcare worker

ANNEX 3: COVID -19 DAILY CONTACT MONITORING TOOL

Liberia COVID-19 Contact Tracing Form

Note: Complete this contact tracing form for every contact of a CONFIRMED CASE under investigation. Close contact is defined as: healthcare-associated exposure, including providing direct care for COVID-19 case, working with healthcare workers infected with COVID-19, visiting or staying in the same close environment of a COVID-19 case. This could also be defined as a healthcare worker working together in close proximity, sharing the same room environment with a COVID-19 case, traveling together with COVID-19 case in any kind of conveyance or living in the same household.

***Mandatory Field**

GPS Point

Latitude Longitude Accuracy

County Name*

- | | | | |
|--------------------------------------|---|--------------------------------------|------------------------------------|
| <input type="checkbox"/> Bomi | <input type="checkbox"/> Grand Cape Mount | <input type="checkbox"/> Margibi | <input type="checkbox"/> River Gee |
| <input type="checkbox"/> Bong | <input type="checkbox"/> Grand Gedeh | <input type="checkbox"/> Maryland | <input type="checkbox"/> Rivercess |
| <input type="checkbox"/> Gbarpolu | <input type="checkbox"/> Grand Kru | <input type="checkbox"/> Montserrado | <input type="checkbox"/> Sinoe |
| <input type="checkbox"/> Grand Bassa | <input type="checkbox"/> Lofa | <input type="checkbox"/> Nimba | |

Monitoring Health District*

Health Zone*

Tracer ID Number

Contact Investigation Number

Confirmed Case ID to the contact*

Personal Information

Last Name

First Name

Middle Name

Do you have any identification card?

- Yes No

ID Number

Contact Gender?*

- Male
 Female

If others, specify

If yes, which type of ID?

- Driver License
 Passport
 National ID
 Voter Card
 Others

Contact Date of Birth*

Do you reside in the same house with the case?

- Yes No

Contact Relation to the Case*

- Brother Sister Cousin Close friend
 Uncle Aunt Staff Others

What is the risk status of the contact?*

- High Risk Low Risk

If others, please specify [

How long have you been together before the case felt sick?*

- One day Two days Three days Four days
 Five days

Date of last contact with the case*

How close where you to the case during your interaction?*

- Shoke hands Slept in the same room
 Ate together Traveled in the same vehicle
 Traveled in the same plane None of the above

Place of last contact with the case*

- Office Restaurant Mosque
 Market Church Others

If others, please specify

Are you a healthcare worker?*

- Yes No

Contact in POC?*

- Yes No

Since your last contact with the confirmed case, have you spent time in another place?*

- Yes No

Primary number:

Do you have any domestic animal living with you?*

- Yes No

If yes, type of animal?

Alternative number:

Name of the POC*

ANNEX 4: COVID -19 DAILY CONTACT MONITORING TOOL

Complete for each contact of confirmed case

Details of contact of case under investigation/confirmed case		
IDSR Case ID	Date of contact	DD/MM/YYYY
Surname	Name	
Date of birth	Gender	
Physical address	District	
House number	Street	
Contact number	Alternative number	

Details of health official completing this form	Date completing form	DD/MM/YYYY
Surname	Name	
Role	Facility name	
Email address	Telephone number	
Province	Town	
Suburb		
Next of Kin name and surname	Next of Kin contact number	

Instructions for completion: Mark "Y" if symptom present and "N" if not. If any first five symptoms are present collect a combined nasopharyngeal and oropharyngeal swab. Refer to COVID-19 for additional details.

Date	1		2		3		4		5		6		7	
Day	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Temperature (°C)														
Fever	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N
Chills	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N
Cough	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N
Sore throat	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N
Shortness of breath	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N
Myalgia/body pains	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N
Diarrhea	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N
Other	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N

Date	8		9		10		11		12		13		14	
Day	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Temperature (°C)														
Fever	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N
Chills	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N
Cough	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N
Sore throat	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N
Shortness of breath	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N
Myalgia/body pains	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N
Diarrhea	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N
Other	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Y <input type="checkbox"/> N

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