

# Council of State and Territorial Epidemiologists COVID-19 Case Definition

5-6-20

# CSTE Standardized surveillance case definition and national notification for 2019 novel coronavirus disease (COVID-19)

- Background

- Early cases in China and the US occurred in clusters
- Cases identified with no epidemiologic link to known cases or clusters
- Recognition of the importance of asymptomatic and presymptomatic viral shedding
- Inclusion of asymptomatic persons as confirmed cases based on laboratory testing criteria alone

- Recommendation

- Immediately notifiable, urgent (within 24 hours)
- Reportable to CDC
- Confirmed and probable case definitions

# Surveillance and Data Sources

- Goals of Surveillance
  - Surveillance of COVID-19 is necessary to characterize the epidemiology of the disease in the United States, to measure the burden of disease in the United States health system, and to inform public health action.

Source of data for case ascertainment	Coverage	
	Population-wide	Sentinel sites
Clinician reporting	X	
Laboratory reporting	X	
Reporting by other entities (e.g., hospitals, veterinarians, pharmacies, poison centers), specify: Hospitals	X	
Death certificates	X	
Hospital discharge or outpatient records	X	
Data from electronic medical records	X	
Telephone survey		
School-based survey		
Other, specify: diagnosis codes, autopsy reports	X	

# Clinical Criteria

- At least two of the following symptoms: fever (measured or subjective), chills, rigors, myalgia, headache, sore throat, new olfactory and taste disorder(s)

OR

- At least one of the following symptoms: cough, shortness of breath, or difficulty breathing

OR

- Severe respiratory illness with at least one of the following:
  - Clinical or radiographic evidence of pneumonia, or
  - Acute respiratory distress syndrome (ARDS).

AND

- No alternative more likely diagnosis

# Laboratory Criteria

Laboratory evidence using a method approved or authorized by the FDA or designated authority:

## Confirmatory laboratory evidence:

- Detection of SARS-CoV-2 RNA in a clinical specimen using a molecular amplification detection test

## Presumptive laboratory evidence:

- Detection of specific antigen in a clinical specimen
- Detection of specific antibody in serum, plasma, or whole blood indicative of a new or recent infection\*

*\*serologic methods for diagnosis are currently being defined*

# Epidemiologic Criteria

One or more of the following exposures in the 14 days before onset of symptoms:

- Close contact\*\* with a confirmed or probable case of COVID-19 disease; or
- Close contact\*\* with a person with:
  - clinically compatible illness

AND

- linkage to a confirmed case of COVID-19 disease.
- Travel to or residence in an area with sustained, ongoing community transmission of SARS-CoV-2.
- Member of a risk cohort as defined by public health authorities during an outbreak.

*\*\*Close contact is defined as being within 6 feet for at least a period of 10 minutes to 30 minutes or more depending upon the exposure. In healthcare settings, this may be defined as exposures of greater than a few minutes or more. Data are insufficient to precisely define the duration of exposure that constitutes prolonged exposure and thus a close contact.*

# Vital Records and Other Criteria for Reporting

## Vital Records Criteria for Reporting

- A person whose death certificate lists COVID-19 disease or SARS-CoV-2 as a cause of death or a significant condition contributing to death.

## Other Criteria for Reporting

- Autopsy findings consistent with pneumonia or acute respiratory distress syndrome without an identifiable cause.

# Case Classification

## *Confirmed:*

- Meets confirmatory laboratory evidence.

## *Probable:*

- Meets clinical criteria AND epidemiologic evidence with no confirmatory laboratory testing performed for COVID-19.
- Meets presumptive laboratory evidence AND either clinical criteria OR epidemiologic evidence.
- Meets vital records criteria with no confirmatory laboratory testing performed for COVID-19.

[https://cdn.ymaws.com/www.cste.org/resource/resmgr/2020ps/interim-20-id-01\\_covid-19.pdf](https://cdn.ymaws.com/www.cste.org/resource/resmgr/2020ps/interim-20-id-01_covid-19.pdf)



Table VII. Classification Table: Criteria for defining a case of COVID-19.

Criterion	Probable					Confirmed
<i>Clinical Evidence</i>						
At least <u>two</u> of the following symptoms: <ul style="list-style-type: none"> <li>• Fever (measured or subjective)</li> <li>• Chills</li> <li>• Rigors</li> <li>• Myalgia</li> <li>• Headache</li> <li>• Sore throat</li> <li>• New olfactory and taste disorder(s)</li> </ul>	O	O	O			
At least <u>one</u> of the following symptoms: <ul style="list-style-type: none"> <li>• Cough</li> <li>• Shortness of breath</li> <li>• Difficulty breathing</li> </ul>	O	O	O			
Clinical or radiographic evidence of pneumonia	O	O	O			
Acute respiratory distress syndrome (ARDS)	O	O	O			
No alternative more likely diagnosis	N	N	N			
<i>Laboratory Evidence</i>						
Detection of SARS-CoV-2 RNA in a clinical specimen using a molecular amplification detection test that has been approved or authorized by the FDA or designated authority						S
Detection of specific antigen in a clinical specimen using tests approved or authorized by the FDA or designated authority		O	O	O		
Detection of specific antibody in serum, plasma, or whole blood indicative of a new or recent infection* using tests approved or authorized by the FDA or designated authority		O	O	O		
Absence of molecular amplification detection test for SARS-CoV-2 RNA	N				N	

<i>Epidemiologic Linkage Evidence</i>						
Close contact** with a confirmed or probable case of COVID-19 disease in the 14 days before onset of symptoms	O	O		O		
Close contact** in the 14 days before onset of symptoms with a person with: <ul style="list-style-type: none"> <li>clinically compatible illness AND</li> <li>linkage to a confirmed case of COVID-19 disease</li> </ul>	O	O		O		
Travel to an area with sustained, ongoing community transmission of SARS-CoV-2 in the 14 days prior to onset of symptoms	O	O		O		
Residence in an area with sustained, ongoing community transmission of SARS-CoV-2 in the 14 days prior to onset of symptoms	O	O		O		
Member of a risk cohort, as defined by public health authorities during an outbreak, in the 14 days prior to onset of symptoms	O	O		O		
<i>Vital Records Evidence</i>						
A death certificate that lists COVID-19 disease or SARS-CoV-2 as a cause of death or a significant condition contributing to death					N	
<i>Criteria to distinguish a new case:</i>						
N/A	N/A	N/A	N/A	N/A	N/A	N/A

**Notes:**

S = This criterion alone is SUFFICIENT to classify a case.

N = All "N" criteria in the same column are NECESSARY to classify a case. A number following an "N" indicates that this criterion is only required for a specific disease/condition subtype (see below). If the absence of a criterion (i.e., criterion NOT present) is required for the case to meet the classification criteria, list the absence of criterion as a necessary component.

O = At least one of these "O" (ONE OR MORE) criteria in each category (categories=clinical evidence, laboratory evidence, and epidemiologic evidence) in the same column—in conjunction with all "N" criteria in the same column—is required to classify a case. A number following an "O" indicates that this criterion is only required for a specific disease/condition subtype.

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