

# **Community Tracing Collaborative**

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The COVID-19 Pandemic: Outbreak & Disease Overview

# The COVID-19 Pandemic | Overview

Dec. 31, 2019 – China reports cluster of 41 patients with novel respiratory virus to WHO

Jan. 11, 2020 – China reports first death to virus

Jan. 13 – First case reported outside of China (Thailand)

Jan. 20 – First case reported in USA (Washington)

Jan. 30 – WHO declares Public Health Emergency of International Concern (PHEIC)

Feb. 11 – Virus renamed "COVID-19"

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Mar 26 – US rises to #1 in number of confirmed cases

As of April 4, in the US: 277, 205 Cases

6,593 Deaths

All 50 states infected + District of Columbia, Puerto Rico, Guam, Northern Marianas, and US Virgin Islands

<https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/cases-in-us.html#2019coronavirus-summary>

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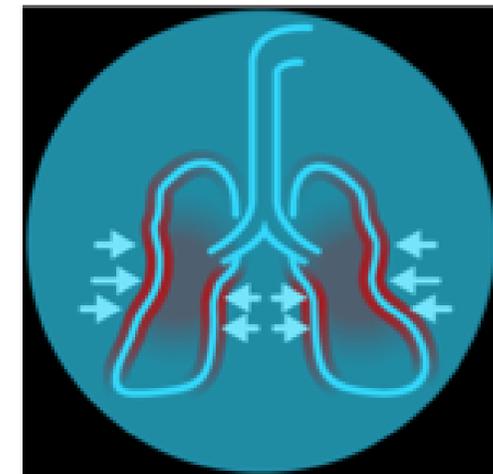


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# The COVID-19 Pandemic | Clinical Features

Presentation ranges from mild symptoms to severe illness and death. Symptoms may appear **2-14 days after exposure** and include:

- Fever
- Cough
- Shortness of breath
- Clinical Complications Include: Acute Respiratory Distress Syndrome (ARDS) , Pneumonia, Septic Shock.



<https://www.cdc.gov/coronavirus/2019-nCoV/hcp/infection-control.html> Updated April 1, 2020

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# The COVID-19 Pandemic | Incubation & Spread

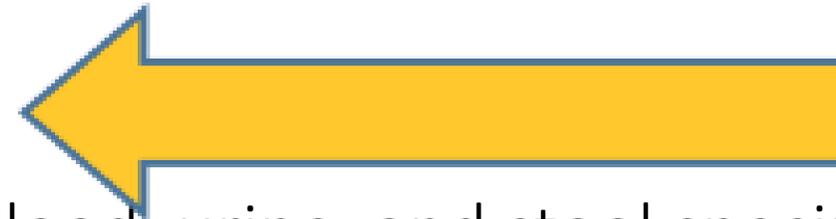
## Incubation Period:

Existing literature regarding SARS-CoV-2 and other coronaviruses (e.g. MERS-CoV, SARS-CoV) suggest that the incubation period may range from 2–14 days.

For the purposes of our work, **TWO WEEKS** is key.

## Transmission of Infection:

- Upper and Lower Respiratory Tract Specimens.
  - Coughing, sneezing, respiratory droplets.
- SARS-CoV has been isolated from respiratory, blood, urine, and stool specimens.
- It is not yet known whether other non-respiratory body fluids from an infected person including vomit, urine, breast milk, or semen can contain viable, infectious SARS-CoV-2.



## The COVID-19 Pandemic | [When is someone infectious?](#)

- **Onset and duration of viral shedding / period of infectiousness for COVID-19 are not yet known.**
  - SARS-CoV-2 RNA may be detectable in respiratory tract for weeks after illness onset; however, this does not necessarily mean that infectious virus is present.
  - **Asymptomatic infection** with SARS-CoV-2 has been reported, but it is not yet known completely what role asymptomatic infection plays in transmission.
- **Infectious Prior to Symptoms?** Role of pre-symptomatic transmission is unknown. However, some data suggests that some individuals may transmit the virus 48 hours before symptoms start.
- **Is reinfection possible?** We don't yet know. The immune response to COVID-19 is not well understood. Patients with MERS-CoV infection are unlikely to be re-infected shortly after they recover, but it is not yet known whether similar immune protection will be observed for patients with COVID-19.

<https://www.cdc.gov/coronavirus/2019-ncov/hcp/faq.html>

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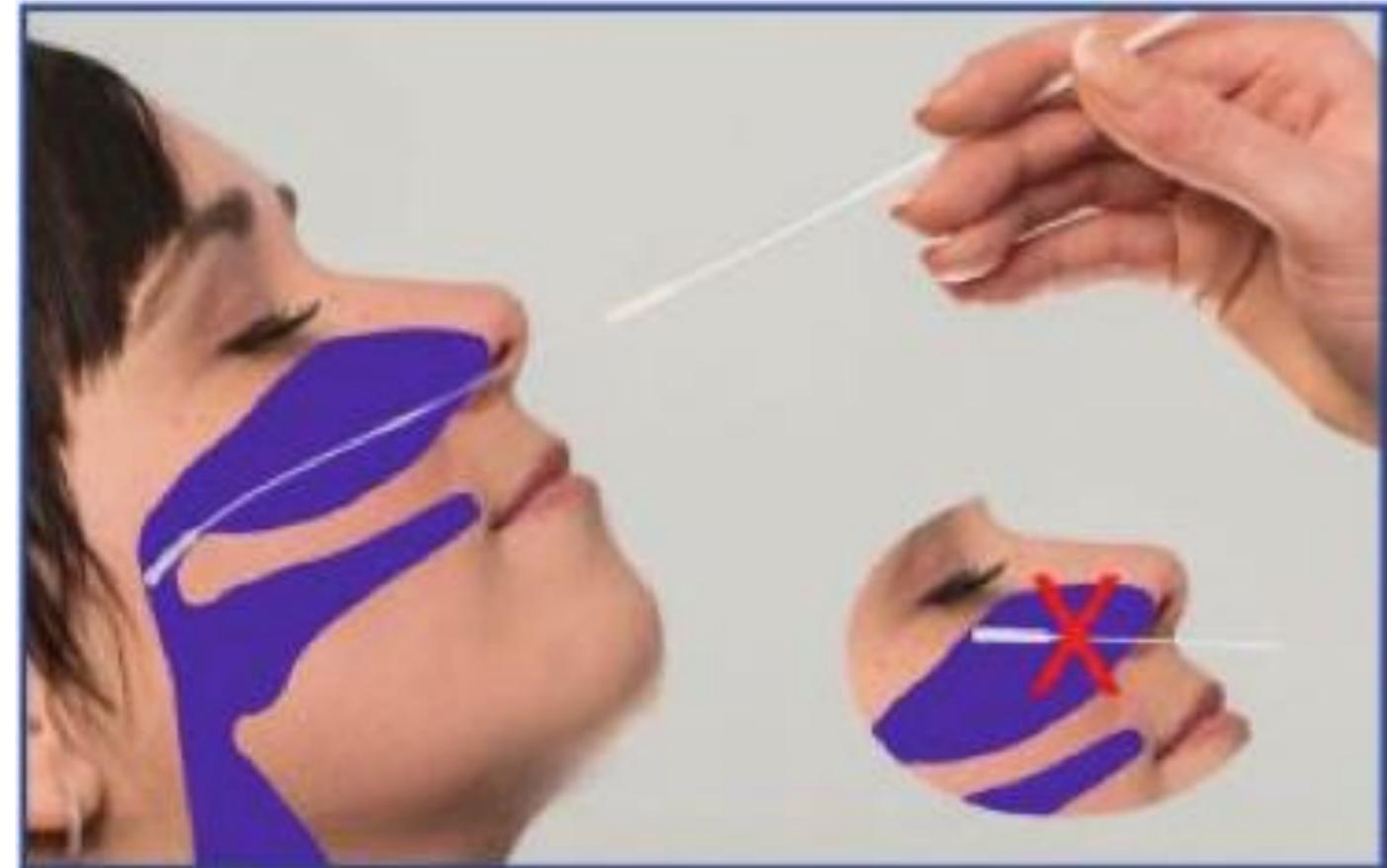


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# The COVID-19 Pandemic | Testing

Nasopharyngeal Swab (NP swab) is the specimen of choice; Oropharyngeal Swabs were utilized earlier in the outbreak but have fallen out of use

PCR Testing utilized to detect viral DNA.



Additional testing processes (such as rapid testing in the field and serology testing) are in the works. Our knowledge and toolkit are changing every day.

# The COVID-19 Pandemic | Who can be tested?

- Jan/Feb: Testing only through CDC
- Early March: Testing expanded to State Laboratories
- Mid-March-present: Testing is expanding daily as it is rolled out through commercial labs and some larger medical providers
- At first, patients had to meet very strict testing criteria and be preapproved.
  - On March 13, 2020, MDPH published clinical advisory with expanded testing guidance outlining who should be tested and where to send those specimens (State Lab vs. elsewhere).



# The COVID-19 Pandemic | Who can be tested?



Now, Public Health Pre-Approval for testing is **NOT REQUIRED**.

However, not everyone presenting in the clinical setting will necessarily be tested (decisions based upon symptoms and available resources in the clinical setting).

<https://www.cdc.gov/coronavirus/2019-nCoV/hcp/clinical-criteria.html>

**PRIORITY 1 | Ensure optimal care options for all hospitalized patients, lessen the risk of nosocomial infections, and maintain the integrity of the healthcare system.**

- Hospitalized patients
- Symptomatic healthcare workers

**PRIORITY 2 | Ensure that those who are at highest risk of complication of infection are rapidly identified and appropriately triaged**

- Patients in long-term care facilities with symptoms
- Patients 65 years of age and older with symptoms
- Patients with underlying conditions with symptoms
- First responders with symptoms

**PRIORITY 3 | As resources allow, test individuals in the surrounding community of rapidly increasing hospital cases to decrease community spread, and ensure health of essential workers**

- Critical infrastructure workers with symptoms
- Individuals who do not meet any of the above categories with symptoms
- Health care workers and first responders
- Individuals with mild symptoms in communities experiencing high COVID-19 hospitalizations

**NON-PRIORITY | Individuals without symptoms**

# The COVID-19 Pandemic | Social Control Measures

## Quarantine, Isolation, & Social Distancing



### ISOLATION

For symptomatic people and for confirmed COVID-19 Cases.

LASTS UNTIL THE PERSON IS NO LONGER CONTAGIOUS

CDC recommendations:

- At least 7 days past symptom onset AND 72 hours without fever without the use of fever reducers (like Tylenol) AND Significant improvement in respiratory symptoms (cough, shortness of breath)

### QUARANTINE

For asymptomatic people with possible exposure (i.e. travelers, close contacts of confirmed cases, etc.)

LASTS FOR 14 DAYS FROM LAST EXPOSURE

- Stay at home – NO GOING OUT, no visitors.
- Stay 6 feet away from other people in your household, no sharing of things like towels and utensils.
- Use standard hygiene and wash hands frequently

### SOCIAL DISTANCING

For everyone.

INDEFINITE

- Maintain at least 6 ft between you and any other person.
- Work from home
- Close schools, switch to online classes
- Cancel or postpone large gatherings

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