

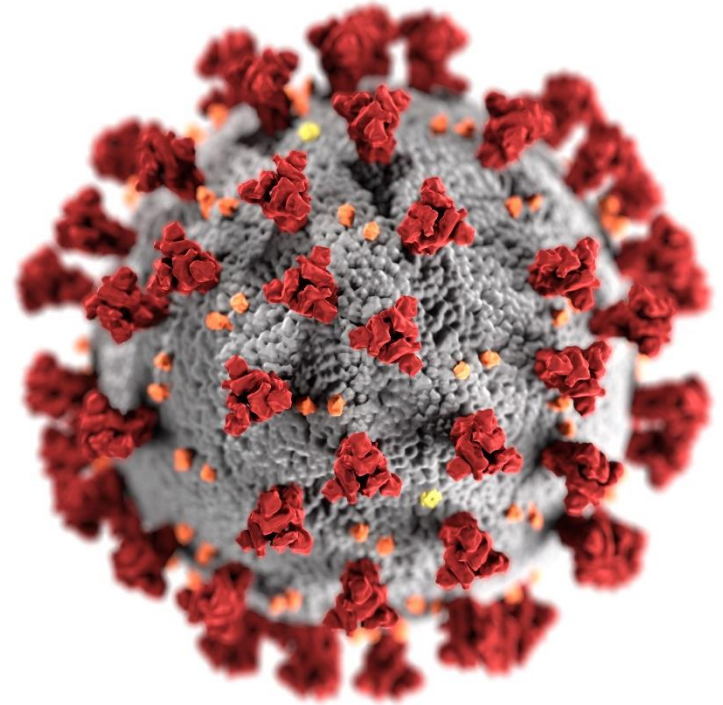
# Border Health Strategies for Mitigating the International Spread of COVID-19

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2019 Novel Coronavirus Response

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[cdc.gov/coronavirus](https://cdc.gov/coronavirus)

[www.cdc.gov/coronavirus/2019-ncov/global-covid-19](https://www.cdc.gov/coronavirus/2019-ncov/global-covid-19)

# Objectives

- Describe travel-associated spread of SARS-CoV-2
- Discuss limitations of screening at Points of Entry (POEs) with regards to COVID-19
- Describe border health strategies for COVID-19



# Travel-associated cases

- “Travel-associated” refers to a probable or confirmed case of COVID-19 in which
  - The person travelled from another country while contagious or during the incubation period
  - The person could have acquired the infection in another country
  - The person had close contact with sick or infected travellers
  - The person has imminent plans to travel to another country
- Collaboration with other countries is needed for investigation and control of the disease



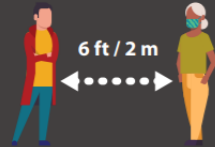
# Travel-associated exposures

- Global spread of SARS-CoV-2, the virus that causes COVID-19, places travellers at risk for acquiring or transmitting the virus during or after travel
- Travellers should monitor themselves for signs and symptoms of COVID-19 and limit international spread by following local public health authority's guidance

## GLOBAL HEALTH ALERT: COVID-19

You may have been exposed to COVID-19 while traveling. Even with no symptoms, you can spread the virus to others.

### Protect others from getting sick:



- Keep at least 6 ft/2 m apart from others.
- Wear a mask.
- Wash your hands often.



Watch your health for symptoms.

### Take care after travel:

- Get tested at 3-5 days AND stay home for 7 days.
- If you don't get tested, stay home for 10 days.



Whether or not you get tested, avoid being around people at increased risk for severe illness for 14 days.

If you test positive or get sick, isolate yourself from others.

[www.cdc.gov/COVIDtravel](https://www.cdc.gov/COVIDtravel)



# Travel-associated case surveillance and reporting

- Responses during an investigation that should alert the surveillance system to take additional steps
  - Responds yes to having travelled from another country
  - Responds yes to having contact with someone who has recently travelled from another country
  - Has plans to travel to another country
- Recommended steps to follow if above criteria are met
  - Surveillance officer conducts a follow-up interview to gather more information about travel history or intent to travel and provide COVID-19 travel recommendations
  - Regional and/or national authorities are notified, according to protocol
  - Counterparts in other countries are notified, according to protocol



# Rapid assessment of POE Capacity (RAPC) Tool

- A qualitative assessment tool for determining the needs and capacities at a POE to address COVID-19
- The tool can be:
  - Tailored to all types of POE
  - Used by Ministry of Health (MOH), port health leaders, as well as national and local stakeholders
  - Used to develop action plans to further develop capacities at POE
- The [RAPC tool](#) is available in six languages: Arabic, English, French, Portuguese, Russian, and Spanish



# Screening at Point of Entry (POE)

- May be useful for diseases with only symptomatic transmission (e.g., Ebola)
  - Potentially infected travellers can be detected at POE by presence of compatible signs and symptoms
- Screening may not be useful for infections that can be transmitted asymptotically or pre-symptomatically (e.g., COVID-19)
  - People do not always present with signs and symptoms of disease, but may still spread infection across borders without being detected at POE



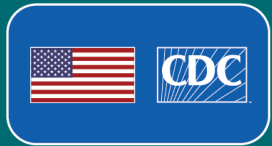
# Limitations of screening for COVID-19 at POE

- Large-scale symptom screening may not be an effective way to prevent the spread of COVID-19
- Symptom screening can only detect overtly ill travellers
  - May miss infected people who are asymptomatic, presymptomatic, or have only mild symptoms
    - Incubation period of COVID-19 is 2-14 days
  - Will detect people with other illnesses that have similar signs/symptoms
- Travellers may:
  - Deny their illness
  - Take medicine to mask symptoms (e.g., fever or cough suppressants)
  - Fail to disclose exposure history





# Mitigation strategies for travel-associated spread



# Community mitigation measures

- Community mitigation measures are actions that are taken to slow the spread of infectious diseases such as:
  - Personal protective measures (e.g., wear masks and maintain physical distance during travel)
  - Water, sanitation, and hygiene (e.g., border communities establish handwashing stations)
  - Cleaning and disinfection (e.g., enhanced cleaning of frequently touched surfaces)
- Strategies can be scaled up or down depending on capacities
- Adapt interventions to POE, border communities, and mobile population needs



# CORONAVIRUS DISEASE 2019 (COVID-19)

<b>International Travel</b> RECOMMENDATIONS AND REQUIREMENTS	Not Vaccinated	Fully Vaccinated
Get tested 1-3 days before traveling out of the US	✓	
Mandatory test required before flying to US	✓	✓
Get tested 3-5 days after travel	✓	✓
Self-quarantine after travel for 7 days with a negative test or 10 days without test	✓	
Self-monitor for symptoms	✓	✓
Wear a mask and take other precautions during travel	✓	✓



[cdc.gov/coronavirus](https://www.cdc.gov/coronavirus)

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# Testing for COVID

- Options to test for current infection include nucleic acid amplification tests (NAAT) and antigen tests (viral tests)
  - When establishing testing requirements or recommendations, MoH should consider test availability, time to obtain results, sensitivity, specificity, cost, and other factors
  - Antibody (serology) tests should not be used for detection of current infection
- CDC does not recommend testing for people who have tested positive for COVID in the past 3 months unless symptomatic
- Removing testing requirements or recommendations for fully vaccinated travellers may be considered



# Predeparture testing

- Predeparture testing (1-3 days before travel) may detect infected travellers before they travel
  - Test results should be available prior to travel
  - Testing should be combined with education about protective behaviors:
    - Self-monitoring for symptoms
    - Wearing a mask
    - Maintaining physical distance
    - Hand hygiene
  - Travel should be postponed or cancelled if test results are positive
- Travellers should follow testing requirements for their destination



# COVID-19: TESTING BEFORE TRAVEL

Get tested **no more than 3 days before** you travel.  
Postpone travel if you are waiting for test results.  
Watch for symptoms of COVID-19.

If you test **NEGATIVE**...



Keep a copy of your test results with you during travel



Take precautions to protect yourself and others from getting COVID-19

If you test **POSITIVE** or develop symptoms of COVID-19...



Do NOT travel



Immediately isolate yourself



Follow public health recommendations



# When Not to Travel to Avoid Spreading COVID-19

- People should not travel if they:
  - Are sick with symptoms of COVID-19, even if fully vaccinated or have recovered from COVID within the past 3 months
  - Tested positive for SARS-CoV-2, even if asymptomatic
  - Have had close contact someone with suspected or diagnosed COVID, unless they are fully vaccinated or recovered from COVID-19 in the past 3 months



# Post-arrival testing

- Post-arrival testing (3-5 days after arrival at destination) can detect people who were incubating infection during travel.
- Testing should be combined with other precautions, including:
  - Maintaining physical distance outside of home
  - Wearing a mask outside of home
  - Hand hygiene
  - Self-monitoring for symptoms of COVID-19
  - Avoiding contact with people at higher risk for severe illness
- Can combine with a stay-at-home period to reduce travel-associated spread
  - CDC recommends 7 days with testing, 10 days without testing





# COVID-19: TESTING AFTER TRAVEL

Get tested **3-5 days after** you travel.

If you test **NEGATIVE**...

If you test **POSITIVE** or develop symptoms of COVID-19...

If you don't get tested...

7



Stay home for 7 days and self-quarantine

Watch for symptoms of COVID-19

Take precautions to protect others



Do NOT travel



Immediately isolate yourself



Follow public health recommendations

10



Stay home for 10 days and self-quarantine

Watch for symptoms of COVID-19

Take precautions to protect others



# Risk communication

- One of the most important and effective interventions when responding to a public health event
- Prevents
  - excessive amount of information that can lead to confusion
  - spread of incorrect information
- Builds trust in the response
  - Increases the likelihood that advice will be followed
- Regular communication and engagement with the community and travelling public can avoid misunderstandings and minimize social disruption



# Communication at POE

- Alerts travellers to signs and symptoms of COVID-19 and what to do if they are sick
- Provides an opportunity to educate travellers on how to protect themselves and others during and after travel
- Informs travellers how to access local health resources
- Ensures travellers receive accurate information



# Communication at POE examples

- Health information cards to arriving or departing travellers
- Health messages posted at POE
- Audio or video messages about signs, symptoms, and what to do if sick
- Social media campaigns to share information about current guidance for travel

## GLOBAL HEALTH ALERT: COVID-19

You may have been exposed to COVID-19 while traveling. Watch your health for symptoms. Even with no symptoms, you can spread the virus to others.

**PROTECT OTHERS FROM GETTING SICK:**



Keep 6 ft/2 m apart from others.



Wear a mask.



Wash your hands often.

**Close contact activities put you at risk for exposure to COVID-19.**  
If you think you may have been exposed while you traveled, take extra care for 14 days after travel:

- Stay home as much as possible.
- Avoid being around people, especially those at higher risk for severe illness from COVID-19.
- Consider getting tested for COVID-19.

For more information: [www.cdc.gov/COVIDtravel](https://www.cdc.gov/COVIDtravel)



Example CDC Travel Health Alert Notice for distribution to arriving travellers regarding COVID-19



# Assessing individual-level risk in mobile populations

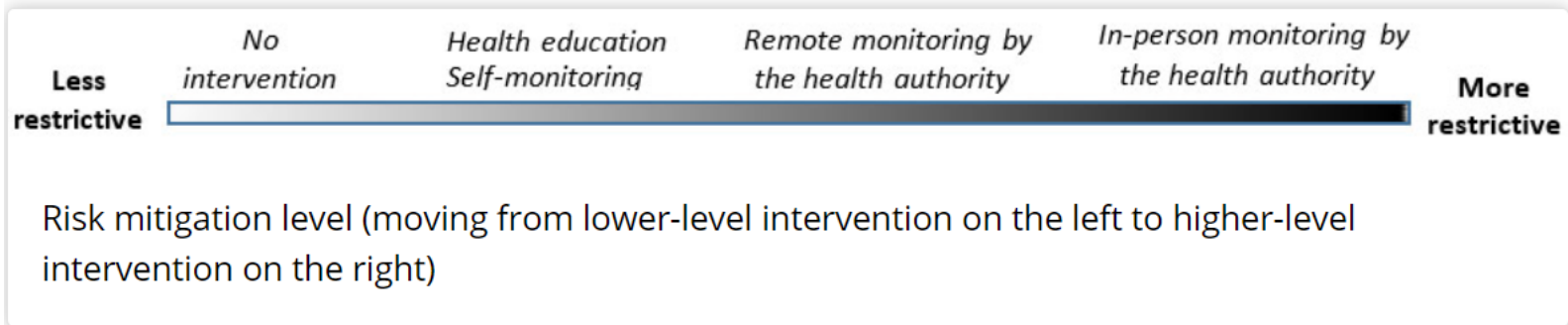
- Develop procedures for assessing individual-level risk to inform appropriate risk-mitigation intervention (monitoring or movement restrictions)
  - Lower risk
    - No history of being in an area with ongoing community transmission
    - Negative molecular or antigen test for SARS-CoV-2 within a timeframe before departure as defined by the receiving country or upon arrival
  - Intermediate risk
    - Traveller arriving from or with recent travel to a country with a high level of COVID-19
    - History of attending a mass gathering or large social gathering
  - Higher risk
    - Close contact with a person with confirmed COVID-19
    - Symptomatic or positive test result



# Monitoring approaches

- Ability to monitor potentially exposed individuals for symptoms and test post-arrival routinely or if symptoms develop

## Monitoring Approaches



# Monitoring approaches

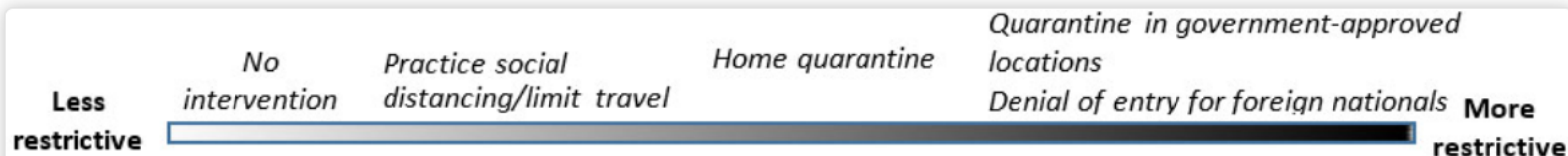
- Recommend travellers self-monitor for symptoms of COVID-19 for a specific period of time
- Conduct in-person monitoring at interval sites along approved routes, e.g., at truck weigh stations or designated trucker lodgings
- Link workers with public health authorities for remote monitoring via a phone application or SMS system for daily reporting while in country
- Develop strategies for post-arrival testing
- Establish multi-country regional surveillance systems for critical infrastructure workers who cross borders to allow for rapid notification of positive test results and facilitate contact tracing



# Movement restrictions approaches

- Consider restricting movement into or out of country
- Consider restricting movement of travellers to facilitate surveillance once admitted into the country
  - Follow local requirements for quarantine after arrival

## Movement Restriction Approaches



Risk mitigation level (moving from lower-level intervention on the left to higher-level intervention on the right)



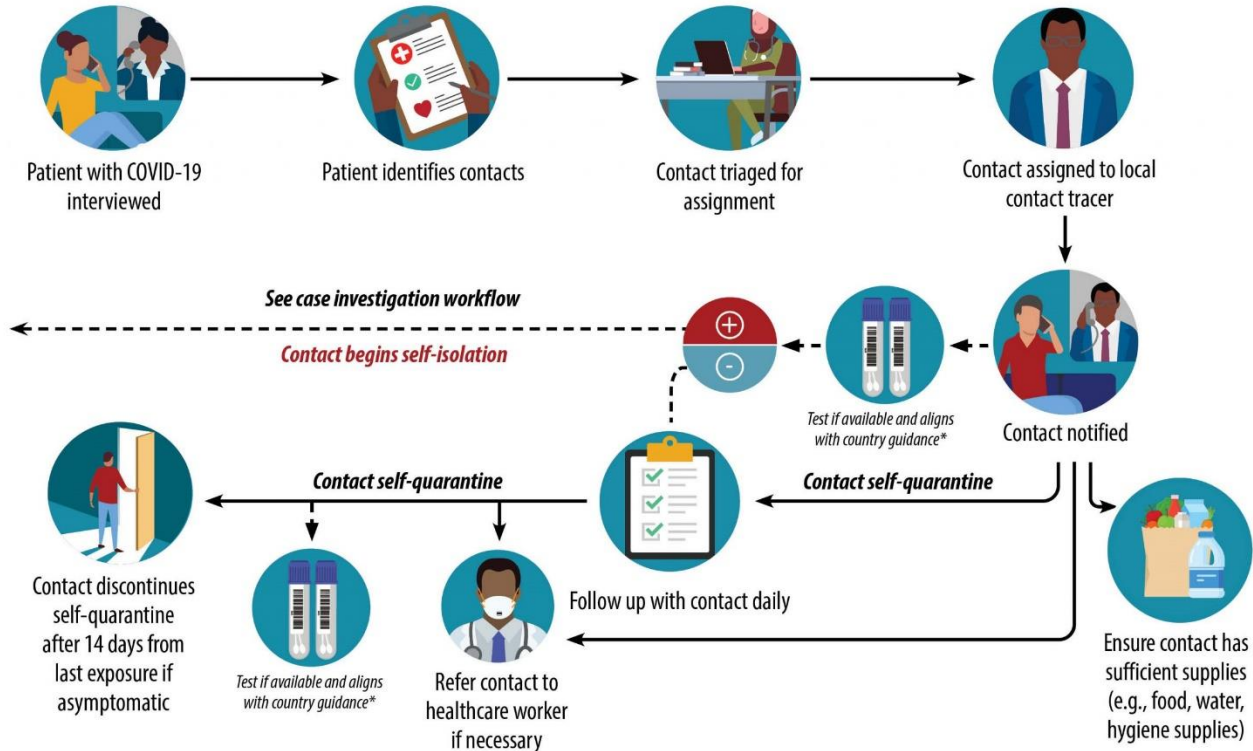


# Movement restrictions approaches

- Recommend limiting time spent in public places or travelling
- Require mandatory quarantine in government-approved locations
- Identify specific routes, stops along the route, and lodgings that workers are allowed to use
- For cargo transports: Offload trucks from other countries at the POE then load contents onto a local truck for transport into the country (this approach may not be suitable for all types of cargo)



# Case investigation and contact tracing



# Case investigation and contact tracing

- Assess the capacity for contact tracing and adaptations to fit the situation
  - Workforce adaptations
    - Who will do case investigations and contact tracing?
  - Epidemiologic adaptations
    - Which contacts will be followed?
  - System adaptations
    - How will cases and contacts be notified and monitored?
  - Operational adaptations
    - What resources will be available to support the system?
  - Border health adaptations
    - How will contacts on conveyances be identified (e.g., manifests, passenger locator forms)?
    - Will international notifications need to be made?



# Understanding population mobility

- Human population movement is common, complex, and can increase the risk of geographic spread of communicable diseases, like COVID-19
- Understanding characteristics of population mobility patterns and connectivity:
  - Allow for effective allocation of resources
  - Inform tailored interventions to respond to public health events
  - Inform prioritization of POE for COVID-19 interventions, capacity building, reopening
  - Highlight at-risk communities within and across borders
  - Identify priority areas or infrastructure for sentinel and community surveillance
  - Enhance national and regional collaboration to strengthen cross-border information sharing and coordination



# Strengthening cross-border coordination

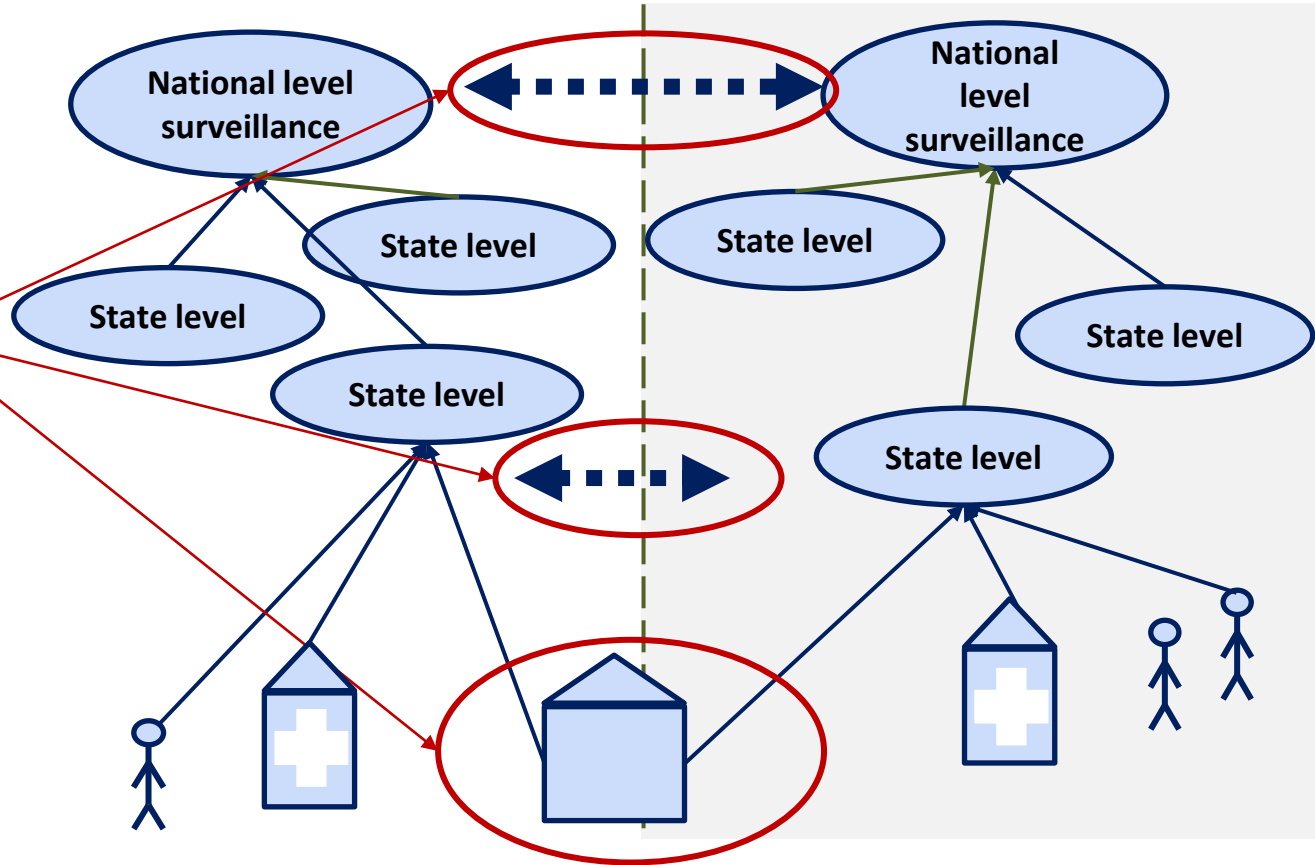
- Improve procedures for public health information sharing
- Create a coordinated approach for preparedness and response activities across borders
- Develop relationships with cross-border counterparts
- Develop operational procedures for public health information sharing and coordination



# Public health cross-border coordination

■ Develop procedures for information sharing:

- **When** to share
- **Who** will share
- **What** to share
- **How** to share



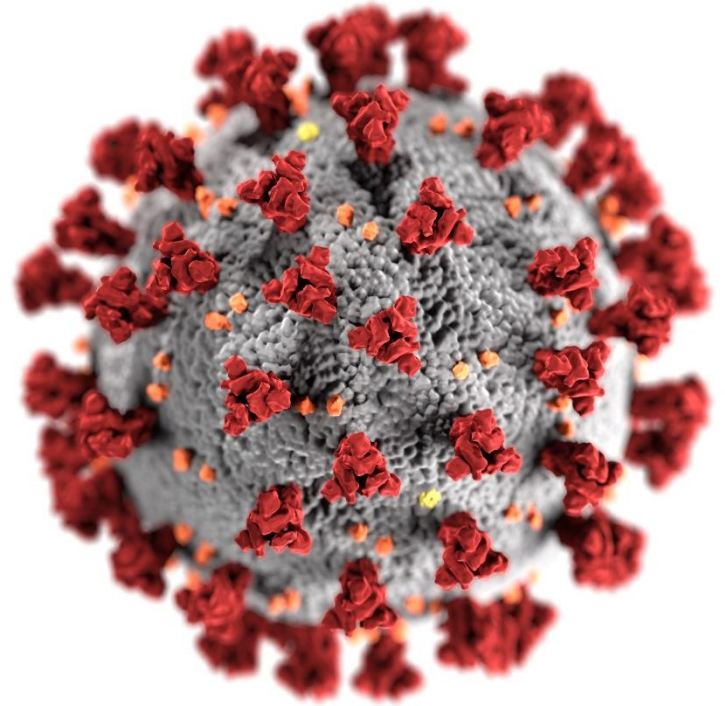
# Summary

- Travel-related exposure and spread of COVID-19 can be reduced through border health strategies and mitigation efforts, including:
  - Community mitigation and risk communications at POE
  - Testing (before or after travel)
  - Monitoring or restriction of movement
  - Case investigation and contact tracing
  - Strengthening of cross border collaborations
- Usefulness of symptom screening at POE for detecting COVID-19 cases is limited
- Determining the best use of border health resources involves many considerations
- Border health strategies complement other measures (e.g., community mitigation) in controlling spread of COVID-19



# Contact information

- Presentation created by the Global Border Health Team, Centers for Disease Control and Prevention, April 2021
- Point of Contact: Sadie Ward-seward1@cdc.gov



For more information, contact CDC  
1-800-CDC-INFO (232-4636)  
TTY: 1-888-232-6348 [www.cdc.gov](http://www.cdc.gov)

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