



# PINNACLECARE



## Medical Intelligence Report

**Date: October 27, 2020**

KeyBank, NA, or its affiliates ("Key") is providing these materials for informational purposes. Key has not reviewed the materials for accuracy or completeness, and the studies and research referenced may change as more information becomes available. The material is not intended as medical advice. Please consult your personal health provider if you have any questions or concerns about any symptoms you or a member of your family are experiencing and before starting any treatments discussed in the materials. Pinnacle is not an affiliate of Key. This material should in no way be considered to be a solicitation by Key for business on behalf of Pinnacle, or an endorsement of Pinnacle. Key makes no representations regarding the suitability or otherwise of the products or services provided by the Pinnacle. Any opinions, projections, or recommendations contained herein are subject to change without notice and are not intended as individual investment advice. This material is presented for informational purposes only and should not be construed as individual tax or financial advice. KeyBank does not give legal advice.

Investment products are:

**NOT FDIC INSURED • NOT BANK GUARANTEED • MAY LOSE VALUE • NOT A DEPOSIT • NOT INSURED BY ANY FEDERAL OR STATE GOVERNMENT AGENCY**



# Topic: Holiday Travel during COVID-19



## Overview

As the normally busy holiday travel season approaches and there is evidence of rising case numbers again around the country, officials have released some specific recommendations to reduce the risk during holiday get-togethers.

The highest risk for transmission of SARS-CoV-2 involves crowded, indoor events in poorly ventilated spaces, which leads to airborne-like transmission of the virus. The added complication that people with COVID-19 are the most infectious before they develop symptoms, and some never develop symptoms, means that most transmission occurs from asymptomatic individuals that do not even know they are sick.

**In these conditions, transmission of SARS-CoV-2 can occur from someone without symptoms through particle emission from simply breathing and talking, and a single infected person can infect 80% of the people in a room.**

## CDC Recommendations

The CDC has released specific recommendations for holidays coming up in the fall and winter seasons (CDC\_Holiday, 2020). The general premise has not changed: wear a mask to reduce particles in the air and to minimize inhaling particles from the air, keep physical distance from others, meet in small groups, and use well ventilated spaces that are preferably outdoors.

There has been an update to the definition that the CDC provides for close contact that may change how people interact. Previously, close contact was defined as being within six feet of a person for 15 minutes or more.

**The new recommendations states transmission has been documented during close contact (within six feet) for a combined period of fifteen minutes within a 24-hour period.**

What this means is that the 15 minutes of close contact do not have to be continuous, and several short, repeated exposures over 24 hours have a similar risk of transmission to one combined exposure.

The information provided in this report is not intended to represent a complete compilation of all treatment options available nor is it to be interpreted as medical advice. The information is intended to serve solely as a guide to facilitate a discussion between you and your medical provider(s). Medical decisions should be made only after consultation with and at the direction of your treating physician(s).

Copyright © 2020 PinnacleCare International, LLC. All rights reserved.

No part of this material may be reproduced in any form, or by any means, without the prior written consent of PinnacleCare International, LLC.



Another recommendation more specific to the travel season includes hosting people either only from your household or from your local area so that people do not have to travel long distances. This reduces their exposure during travel and prevents accidentally importing infections from areas that might be experiencing a different level of community spread.

Other activities that are popular during the fall and winter that are considered to have a high risk for the transmission of the virus include shopping in crowded stores, parades, attending sports events, and attending large indoor gatherings with people from outside your household and local area.

### The factors highlighted by the CDC to consider when determining the risk of a specific situation include

- **The level of COVID-19 in your community-** When there are a high number of people in your community with COVID-19, it is more likely that someone at an event will be infected, which increases the risk of coming into close contact with someone. Family and friends should consider the number and rate of COVID-19 cases in their community and in the community where they plan to celebrate when considering whether to host or attend a holiday celebration.
- **The location of the gathering-** Indoor gatherings generally pose more risk than outdoor gatherings. Indoor gatherings with poor ventilation pose more risk than those with good ventilation, such as those with open windows or doors.
- **The duration of the gathering-** Gatherings that last longer pose more risk than shorter gatherings.
- **The number of people at the gathering-** Gatherings with more people pose more risk than gatherings with fewer people. CDC does not have a limit or recommend a specific number of attendees for gatherings. The size of a holiday gathering should be determined based on the ability to reduce or limit contact between attendees, the risk of spread between attendees, and state, local, territorial, or tribal health and safety laws, rules, and regulations.
- **The locations attendees are traveling from-** Gatherings with attendees who are traveling from different places pose a higher risk than gatherings with attendees who live in the same area. Higher levels of COVID-19 cases and community spread in the gathering location, or where attendees are coming from, increase the risk of infection and spread among attendees.
- **The behaviors of attendees prior to the gathering-** Gatherings with attendees who are not adhering to social distancing (staying at least 6 feet apart), mask wearing, hand washing, and other prevention behaviors pose more risk than gatherings with attendees who are engaging in these preventative behaviors.
- **The behaviors of attendees during the gathering-** Gatherings with more preventive measures in place, such as mask wearing, social distancing, and hand washing, pose less risk than gatherings where fewer or no preventive measures are being implemented.

The information provided in this report is not intended to represent a complete compilation of all treatment options available nor is it to be interpreted as medical advice. The information is intended to serve solely as a guide to facilitate a discussion between you and your medical provider(s). Medical decisions should be made only after consultation with and at the direction of your treating physician(s).

Copyright © 2020 PinnacleCare International, LLC. All rights reserved.

No part of this material may be reproduced in any form, or by any means, without the prior written consent of PinnacleCare International, LLC.



## Who should not attend holiday celebrations?

The CDC has also compiled a list of people who should not go to any gathering regardless of whether it has been modified to lower risk. This includes both those who have a risk themselves and those who would pose a risk to the other people attending.

**People who have a higher risk for developing severe symptoms from COVID-19 should not attend gatherings with people outside of their household and should avoid events with large crowds.**

**People who have had a high-risk contact with someone with COVID-19 should not attend gatherings, which also includes the members of their household.**

After a possible contact with someone who has COVID-19, it is possible to develop an infection for up to 14 days after the exposure. **This is true even after testing negative for COVID-19** with a test approved by the FDA because it can take a while for the level of virus to become detectable. There are several published accounts of clusters of COVID-19 that resulted from people who had previously tested negative.

**The CDC defines those with a high-risk exposure as individuals who**

- Have been diagnosed with COVID-19 and have not met the criteria for when it is safe to be around others
- Have symptoms of COVID-19
- Are waiting for COVID-19 viral test results
- May have been exposed to someone with COVID-19 in the last 14 days

## COVID-19 Risks Associated with Different Forms of Transportation

Long-distance travel in the midst of the COVID-19 pandemic increases a person's risk of contracting the disease. No form of travel is risk free because there are points in all cases where contact is made with groups of people from other communities, including airports, bus stations, train stations, and rest stops. These areas are also normally places where it is difficult to maintain an appropriate physical distance from others. The longer the exposure occurs the more the risk increases.

There are specific considerations and risks that the CDC has compiled for different forms of travel. When traveling by car, it is necessary to make stops along the way for gas, food, or bathroom breaks that can lead to close contact with other people and frequently-touched surfaces. Using an RV rather than a car may mean less stops for food or bathroom breaks, but contact will still occur at campgrounds, gas stations, and other stores.

The information provided in this report is not intended to represent a complete compilation of all treatment options available nor is it to be interpreted as medical advice. The information is intended to serve solely as a guide to facilitate a discussion between you and your medical provider(s). Medical decisions should be made only after consultation with and at the direction of your treating physician(s).

Copyright © 2020 PinnacleCare International, LLC. All rights reserved.  
No part of this material may be reproduced in any form, or by any means, without the prior written consent of PinnacleCare International, LLC.

**For all forms of travel, the CDC recommends**

- Wear a mask to keep your nose and mouth covered when in public settings, including on public transportation and in transportation hubs such as airports and stations.
- Avoid close contact by staying at least 6 feet apart from anyone who is not from your household.
- Wash your hands often or use hand sanitizer (with at least 60% alcohol).
- Avoid contact with anyone who is sick.
- Avoid touching your eyes, nose, and mouth.

Traveling on buses and trains often involves sitting or standing within 6 feet of others in an enclosed space with low rates of ventilation, which are conditions that can increase the risk of COVID-19. For short trips, there are recommendations for use of public transportation that apply, such as wearing a mask, avoiding contact with surfaces, remaining socially distant, and practicing hand hygiene. For long trips, the risks would be similar to those on long airplane flights.

Air travel requires spending time in security lines and airport terminals, which can bring you in close contact with other people and frequently touched surfaces. Most viruses and other germs do not spread easily on flights because of how air circulates and is filtered on airplanes, but there is evidence of transmission during longer flights. Social distancing is difficult on crowded flights, and sitting within 6 feet of others, sometimes for hours, may increase your risk of getting COVID-19. Also consider how you get to and from the airport, as public transportation and ridesharing can increase your chances of being exposed to the virus.

**Does transmission occur on commercial airplane flights?**

Two studies were published in the CDC publication *Emerging Infectious Diseases* that detail instances of COVID-19 transmission on commercial flights.

In the first, researchers performed an in-depth assessment of the risk for transmission from infected passengers to other passengers or crew members during the course of a flight on March 2 that began in London, United Kingdom and flew to Hanoi, Vietnam (Khanh et al., 2020). A cluster of infection was identified after the flight that involved 16 individuals. A single passenger seated in business class was the first identified case in the group (or the index case) and was experiencing a sore throat and cough during the flight. It was determined that the index case was infected during travels in Italy and other areas in Europe, and her traveling partner, who resides in London, was also diagnosed with COVID-19 in London after departure of the flight to Hanoi. There were 217 passengers and crew aboard the flight, and contact tracing was conducted for all passengers and crew that remained in Vietnam (168 individuals). Thirty-three passengers had continued on to other countries and were not available to the researchers for evaluation.

It was determined that 12 passengers in business class were infected with SARS-CoV-2 in addition to two travelers and a flight attendant who were in economy class. Of the 15 cases that were acquired in-flight, 80% were seated in business class. The secondary attack rate in

The information provided in this report is not intended to represent a complete compilation of all treatment options available nor is it to be interpreted as medical advice. The information is intended to serve solely as a guide to facilitate a discussion between you and your medical provider(s). Medical decisions should be made only after consultation with and at the direction of your treating physician(s).

Copyright © 2020 PinnacleCare International, LLC. All rights reserved.

No part of this material may be reproduced in any form, or by any means, without the prior written consent of PinnacleCare International, LLC.



business class was found to be 62%. Proximity to the index case during the flight was strongly associated with an increased infection risk, and 92% of passengers within two meters of the index case, which corresponds to about two seats away or closer, were infected. Those in business class who were more than two meters away had a lower risk of infection, and 13% of the individuals in this group were infected.

There were some questions about the infection source for the crew member and passengers in economy class because two passengers next to the two who tested positive continued their travel out of Vietnam and were not available for assessment. Because of the separation from the known index case in business class, the cases in economy class could potentially be a separate index case that was infected before boarding with transmission while on board. The potential role of surfaces on the plane containing infectious particles or intermingling during boarding or arrival could not be evaluated but may also have been associated with transmission of SARS-CoV-2 to the individuals in economy class. The researchers were not able to sequence the virus transmitted on this flight to confirm the same strain was involved in all passengers, but information on the timing of diagnosis, symptoms, and previous potential exposures indicate that the 15 people who tested positive after the flight were infected while on board.

**The authors indicate that their results suggest additional interventions, beyond wearing a mask, may be needed for international air travel because of the longer duration of the flights.**

They propose increasing the distance between passengers and skipping the middle seat in rows. Additionally, they mentioned that screening measures for symptomatic individuals proved to be inadequate as they did not identify the index case on this flight even though passengers were evaluated for fever before boarding.

The second case of in-flight transmission was reported from a flight originating in Boston, Massachusetts and ending in Hong Kong on March 9 through March 10 (Choi et al., 2020). The index cases were a married couple seated in business class during the flight, and SARS-CoV-2 infection was transmitted to two flight attendants who were in close contact with the couple during the flight. Both of the index cases developed symptoms after the flight on March 10, including fever, productive cough, and sore throat. The couple had visited Toronto, Canada, New York City, New York, and Boston during their travels spanning February 15 to March 9.

The first flight attendant was asymptomatic and was tested on March 16 after being informed of close contact with the index cases during the flight. The second flight attendant developed fever and a cough on March 18 and was later hospitalized for COVID-19. A secondary attack rate for the flight could not be calculated because not all the passengers on the flight were tested, but no other cases were known to have been associated with this flight.

The researchers were able to sequence the virus from the four individuals, and it was found that the samples were 100% identical. The strain of virus collected from individuals on the flight had not previously been observed in Hong Kong, but was identified in individuals in Toronto, New York City, and Massachusetts.

**This is the first case of in-flight transmission that could be corroborated by genetic sequencing of the virus from infected individuals, and both the genetic evidence**

The information provided in this report is not intended to represent a complete compilation of all treatment options available nor is it to be interpreted as medical advice. The information is intended to serve solely as a guide to facilitate a discussion between you and your medical provider(s). Medical decisions should be made only after consultation with and at the direction of your treating physician(s).

Copyright © 2020 PinnacleCare International, LLC. All rights reserved.

No part of this material may be reproduced in any form, or by any means, without the prior written consent of PinnacleCare International, LLC.



**and timing of diagnosis, symptoms, and previous potential exposures indicate that transmission of SARS-CoV-2 occurred during the flight from Boston to Hong Kong.**

## COVID-19 Risks in Hotels

Because of the extended nature of a stay at a hotel, there is an increased risk that an exposure could occur (CDC\_Personal, 2020). Common areas of a hotel should be treated as other public, indoor spaces with use of masks and physical distancing. Elevators should not be used by more than two people who do not reside in the same household.

**Before reserving a hotel room, the CDC suggests asking about the preventive measures that have been put into place to reduce the risk of transmission, including**

- Are there options for online reservation and check-in, mobile room keys, and contactless payment?
- Are all staff wearing masks at work?
- Are there extra prevention practices being implemented by the hotel, such as barriers at check-in counters, and physical distancing signs in the lobby?
- What are the updated policies about cleaning and disinfecting or removing frequently touched surfaces and items (such as pens, room keys, tables, phones, doorknobs, light switches, elevator buttons, water fountains, ATMs/card payment stations, business center computers and printers, ice/vending machines, and remote controls)?

Some other factors to consider might be checking if the windows open in the room to allow for ventilation when arriving, finding out how long ago someone was in the room, and putting out the “do not disturb” sign so that no one else enters during the stay. Avoid areas in the hotel where people gather, such as the pool or exercise room. Do not eat in enclosed areas with groups outside of your household.

**In general, the CDC suggests keeping the visit as contactless as possible.**

There is not a specific recommendation about cleaning the room after checking in, but there is a guideline for safely disinfecting surfaces if it seems necessary.

<https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/cleaning-disinfection.html#clean-disinfect>

## Increasing Evidence of Transmission at Small Family Gatherings

Increased community transmission during June and July demonstrated the speed with which SARS-CoV-2 can spread, even without clusters from high-risk congregate settings, such as long-term care facilities, food processing facilities, and correctional facilities (Oster et al., 2020).

The information provided in this report is not intended to represent a complete compilation of all treatment options available nor is it to be interpreted as medical advice. The information is intended to serve solely as a guide to facilitate a discussion between you and your medical provider(s). Medical decisions should be made only after consultation with and at the direction of your treating physician(s).

Copyright © 2020 PinnacleCare International, LLC. All rights reserved.

No part of this material may be reproduced in any form, or by any means, without the prior written consent of PinnacleCare International, LLC.



**In fact, in several states it was determined that most of the cases identified over the summer originated from family gatherings.**

In a call to state governors on October 13, Robert Redfield, the director of the CDC, stated that small family gatherings are becoming a growing source of coronavirus spread in the United States (Klein, 2020). Maryland reported on September 1 that, among those who spoke with contact tracers, the largest proportion of people (40%) who contracted COVID-19 did so at a family gathering (Miller, 2020). Similar reports have also been released from health officials in Ohio, New Jersey, North Carolina, and Illinois (Oatman, 2020, Murphy, 2020, and Lightfoot and Awdry, 2020).

One example identified by the CDC involved household transmission from an adolescent during a three-week holiday gathering that included five households over the summer. (Schwartz et al., 2020). The index patient, who was 13-years-old, had been exposed while away from home in June. Upon return, she had a rapid antigen test four days after exposure. She had no symptoms at the time and the test was negative. Two days later she reported nasal congestion, and no other symptoms occurred. On the day of onset of the nasal congestion, the index patient and her immediate family, her parents and two brothers, traveled to a family gathering with 15 other relatives from five households in four states with an age range from 9 to 72 years. The members of the group stayed in a five-bedroom house for between eight and 25 days. Six other relatives visited on two days but did not stay in the same residence, and stayed physically distanced outdoors without masks during the visit. Twelve of the 14 people staying at the vacation house reported symptoms of COVID-19, with six confirmed by PCR-based testing, four were classified as probable based on antigen testing and clinical symptoms, and two had positive antibody tests, including the index patient. One person with COVID-19 was hospitalized and another sought emergency department care for respiratory symptoms, and both recovered. None of the relatives who visited outdoors had symptoms, and four had negative PCR-based tests. It was proposed that the original negative antigen test received by the index patient occurred because it was administered before the onset of symptoms, and the Emergency Use Authorization for this test stipulated use within the first five days after the onset of symptoms to ensure sufficient levels of antigens are present for detection.

**The authors conclude that children and adolescents can serve as the source for COVID-19 outbreaks within families, even when their symptoms are mild, and adherence to physical distancing while outdoors, as practiced by the visiting relatives, can reduce the risk of transmission.**

Another important factor is that people who have had a high-risk exposure to known cases of COVID-19 should quarantine themselves even after receiving a negative test result because of the possibility of false-negative results.

## References

CDC. Holiday Celebrations. Updated October 19, 2020. Accessed on October 24, 2020 at <https://www.cdc.gov/coronavirus/2019-ncov/daily-life-coping/holidays.html>

The information provided in this report is not intended to represent a complete compilation of all treatment options available nor is it to be interpreted as medical advice. The information is intended to serve solely as a guide to facilitate a discussion between you and your medical provider(s). Medical decisions should be made only after consultation with and at the direction of your treating physician(s).

Copyright © 2020 PinnacleCare International, LLC. All rights reserved.

No part of this material may be reproduced in any form, or by any means, without the prior written consent of PinnacleCare International, LLC.



CDC. Personal and Social Activities. Updated October 22, 2020. Accessed on October 26, 2020 at <https://www.cdc.gov/coronavirus/2019-ncov/daily-life-coping/personal-social-activities.html#Traveling%20overnight>

CDC. Protect Yourself When Using Transportation. Updated Oct. 21, 2020. Accessed on October 24, 2020. <https://www.cdc.gov/coronavirus/2019-ncov/daily-life-coping/using-transportation.html#PublicTransit>.

CDC. Travel during the COVID-19 Pandemic. Updated Oct. 21, 2020. Accessed on October 24, 2020 at <https://www.cdc.gov/coronavirus/2019-ncov/travelers/travel-during-covid19.html>

Choi EM, Chu D, Cheng P, et al. In-Flight Transmission of SARS-CoV-2. *Emerging Infectious Diseases*. 2020;26(11):2713-2716. doi:10.3201/eid2611.203254.

Khanh N, Thai P, Quach H, et al. Transmission of SARS-CoV 2 During Long-Haul Flight. *Emerging Infectious Diseases*. 2020;26(11):2617-2624. doi:10.3201/eid2611.203299.

Klein B. Small family gatherings are spreading Covid-19, CDC director says. *CNN*. Published October 13, 2020. Accessed on October 26, 2020 at <https://www.cnn.com/world/live-news/coronavirus-pandemic-10-13-20-intl/index.html>

Lightfoot and Awdry. Press Release. Published October 16, 2020. Accessed on October 26, 2020 at [https://www.chicago.gov/city/en/depts/mayor/press\\_room/press\\_releases/2020/october/alarm-on-second-wave-of-COVID-19.html](https://www.chicago.gov/city/en/depts/mayor/press_room/press_releases/2020/october/alarm-on-second-wave-of-COVID-19.html)

Murphy. Press Release. Published October 19, 2020. Accessed on October 26, 2020 at <https://nj.gov/governor/news/news/562020/approved/20201019b.shtml>

North Carolina Department of Health and Human Services. COVID-19 Clusters in North Carolina. Updated October 21, 2020. Accessed on October 26, 2020 at <https://files.nc.gov/covid/documents/dashboard/COVID-19-Clusters-in-NC-Report.pdf>

Oatman, A. Health experts say family gatherings have become a key factor in COVID-19 cases. *Cleveland.com*. Published October 16, 2020. Accessed October 24, 2020 at <https://www.cleveland.com/news/2020/10/health-experts-say-family-gatherings-have-become-a-key-factor-in-covid-19-cases.html>

Oster AM, Kang GJ, Cha AE, et al. Trends in Number and Distribution of COVID-19 Hotspot Counties — United States, March 8–July 15, 2020. *MMWR Morb Mortal Wkly Rep* 2020;69:1127–1132.

Schwartz NG, Moorman AC, Makaretz A, et al. Adolescent with COVID-19 as the Source of an Outbreak at a 3-Week Family Gathering — Four States, June–July 2020. *MMWR Morb Mortal Wkly Rep* 2020;69:1457–1459.

The information provided in this report is not intended to represent a complete compilation of all treatment options available nor is it to be interpreted as medical advice. The information is intended to serve solely as a guide to facilitate a discussion between you and your medical provider(s). Medical decisions should be made only after consultation with and at the direction of your treating physician(s).

Copyright © 2020 PinnacleCare International, LLC. All rights reserved.  
No part of this material may be reproduced in any form, or by any means, without the prior written consent of PinnacleCare International, LLC.