

Summary Q&A

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Court Proceedings During a Pandemic

Courts play a critical role in a democratic society—they seek to resolve disputes peacefully and fairly and thereby promote confidence in and respect for the law. Traditionally, resolving these disputes has involved assembling large numbers of people—litigants, judges, attorneys, jurors, court staff, and members of the public—for in-person court proceedings. Although civil matters today are often resolved through paper filings, in-person proceedings remain a bedrock of the criminal justice system, both as a matter of practice and because the U.S. Constitution and state and federal law require certain criminal proceedings to be conducted in person.

The Covid-19 pandemic, and the risks associated with congregating groups of people in confined spaces, disrupted this traditional reliance on in-person proceedings. As concerns about the virus grew in the United States in March and April 2020, many courts across the country began to reduce in-person operations. The extent to which courts did so often reflected the extent to which their respective regions were affected by the virus—for example, many courts in urban areas most affected by Covid-19 closed their courthouses to the public, shifted most employees to telework, and postponed all in-person proceedings for weeks or months. Jury proceedings—which typically require prolonged close contact between individuals—were among the first proceedings to be postponed.

Despite these reduced operations, the judiciary continued to perform critical functions. Even courts that were physically closed to the public remained open to accepting paper and electronic filings, and many worked to expand—or develop from scratch—abilities to conduct proceedings virtually. To accommodate the growth of virtual court, lawmakers enacted legislation to better facilitate it—for example, Congress's first major coronavirus relief bill, the CARES Act, included provisions that provided that federal felony guilty pleas and sentencings could now be conducted virtually if certain conditions were met. The transition to virtual proceedings allowed many courts to continue performing their most important functions during the first few months of the pandemic.

As the pandemic continues, however, many courts are now looking for ways to gradually expand operations and resume in-person proceedings to the extent it is safe to do so. In this process, courts are dealing with a variety of challenges, among them: how to maintain social distancing in courtrooms, how to safely transport detained defendants, and, perhaps the most difficult, how to safely resume jury trials.

This article evolved from a series of consultations and conference calls that the authors performed in late 2020 for the US Federal Courts, to provide advice on mitigating risk of COVID-19 in the court system, and how to re-start in person court proceedings. This article explores how courts are confronting some of these issues and discusses possible measures courts can implement as they work to safely expand operations. To make this practical, the issues are organized in a Q&A format

Travel to Court and in the Building

What about Public Transportation

Especially in urban areas, many Court employees, persons with Court business, and jurors use public transportation. We have learned over the past few months that public transportation can be safe, as long as infection control measures are followed. Public buses and trains have maximized their ventilation systems and instituted enhanced cleaning procedures. In fact, studies in New York have shown that subway cars have >18 air exchanges per hour!

Mitigation strategies for public transit include:

- Universal masking (EVERYONE)
- Travel at off peak times to minimize exposure to crowded situations
- If a bus or train is crowded, wait for the next one. Therefore, insert flexibility into travel schedules
- Officer should encourage staggered work hours so that travel can occur at off-peak times
- Consider opening windows in buses or trains, if possible

What about elevators?

The typical elevator normally can fit 8-12 persons and has weight limits of 2000-3000 pounds. In these elevators, we recommend that no more than four people be inside the elevator, masked, all facing front and no talking. If it is not a high-rise building, people can be encouraged to take the stairs, and stairwells should be, if possible divided into up and down stairs

What about Rest Rooms?

The important issue in restrooms is the ability to maintain social distance. Rest rooms should develop capacity limits based on the facility.

- Restroom ventilation should be optimized and fans should be set to run continuously
- In a woman's bathroom or in the stalls and the men's bathroom, the stall dividers provide enough protection so these can be used normally.

- We recommend closing off every other sink, and in mens' rest rooms, every other urinal. This is to preserve physical distancing
- When flushing the toilet, we recommend closing the lid, or facing away from the bowl. This is to reduce the theoretical possibility of exposure to toilet plumes
- Hand sanitizer should be liberally available
- We do not recommend using the air dryers because of the possibility of producing fine aerosol droplets, although this is more of a theoretical concern.

What about Water Fountains

We recommend that water fountains be shut down for the duration of the pandemic.

What about Symptom and Temperature Checks ?

We recommend that all employees and visitors to the courts have a symptom screen daily. Symptoms include fevers, myalgias (muscle aches), chills, diarrhea, shortness of breath, sore throat, and being in contact with a person who has COVID. Individuals who answer "yes" to the screening questions be referred for medical evaluation and testing

Many facilities have also implemented temperature screening with touchless (infra-red) thermometers. Temperature screening is valuable in that it will identify the small number of persons who are initially symptom-negative, but who may be developing a symptomatic COVID or other viral infection. However, the proportion of individuals identified is low. However, there are non-clinical reasons for doing temperature screening including communicating to the public that the courts are taking the epidemic seriously. We see temperature screening as an optional activity.

If temperature screening is performed, the screeners should be familiar with the devices used, as well as the specific calibration requirements, as well as the natural diurnal variations which occur in humans. For example, temperatures may vary 0.5-1 degree between morning and late afternoon.

Respiratory Transmission

What about Aerosols and Droplets?

COVID-19 is transmitted almost exclusively by the respiratory route. The differentiation between aerosols and droplets is often misunderstood, because these are in fact terms with technical definitions. In both cases, transmission is airborne—the differences are the size of the particles, the relationship between infectiousness and proximity to the index (or infectious) person.

In healthcare settings, we've long divided the airborne transmission of respiratory pathogens into two big buckets, droplets and aerosol. The prototypical **aerosol** pathogens are measles or TB, which are usually encased within very small aerosol droplets (**<5 microns, which is 0.005mm**) which can travel and float in air currents easily. When the aerosol lands on the mucosal surface of a susceptible person, it can cause infection.

The second bucket is what called droplet transmission. These are droplets of respiratory secretions which are generally >10 microns in diameter (0.01 mm). Because of their larger size, under typical circumstances, they fall to the ground within six feet. This is the basis for the 6 foot distance rule.

However, as in many situations, the reality is a bit murkier. We know that there is an intermediate category of small particle aerosols and that viruses respiratory viruses like SARS CoV2, influenza and rhinovirus, and under certain conditions can remain suspended in the air and travel longer distances than six feet. These conditions include singing (eg in choirs or in church), raised voices ,arguing , or vigorous coughing.

Nevertheless, we need to differentiate between the *ability to detect virus at a certain place and time* and the *ability to infect a susceptible person*. The tests used to diagnose SARS CoV2 and to detect environmental contamination are typically nucleic acid amplification tests, which are incredibly sensitive, and can detect as few as 10 copies of viral nucleic acid (for SARS CoV2 it is viral RNA). However to establish and initiate infection, a much larger threshold number of viral particles is required (******?**) a concept known as the *infectious inoculum*. This is why transmission under most circumstances requires about 15 minutes of close contact. These contact exposures do not have to be a continuous exposure, but can also be a summation of exposures during a day with COVID infected persons

Even though there are studies that report detection of viral particles in the air for long periods of time, we still believe that you really need to be within about six feet period or six feet distance for a prolonged period of time for transmission to occur.

There are some exceptions, most notably the **“superspreader events”**, in which many people are infected during a single event or exposure. These have some common features which include crowding, no use of masks, respiratory exertion such as singing or talking loudly in a bar, multiple close contact exposures, and poor ventilation. In these situations we we postulate that these aerosols can build up and cause an increase the risk for occupants of that enclosed setting.

Prevention includes maintaining that physical distance is maintained in indoor settings and the ventilation systems are optimized

What characterizes superspreader events

Superspreader events are situations where circumstances facilitate highly efficient transmission to a susceptible group of people. They usually have a number of characteristics including:

- Large groups of people congregating in a close space and no social distancing

- High level of physical interpersonal contact
- High proportion of persons who are not wearing PPE
- Poor air flow circulation
- Settings where there is “vocalization”—eg singing in enclosed indoor spaces,, high levels of animated conversation

Settings for superspreader events have included bars and restaurants, large weddings or similar parties, political rallies, and large gatherings.. Even if events take place outdoors, where ventilation is better, if all other preventive measures are ignored, high levels of transmission can occur, as was seen at White House events and the Sturgis motorcycle rally

In court settings, with appropriate distancing and PPE use, transmission is prevented. We would, however, encourage lawyers, witnesses and other participants in the proceedings to avoid raising voices and hyperanimated conversation

What is the practical impact of the aerosol vs droplet debate and whether you call it an aerosol or a small droplet does it matter?

The short answer is that in community settings, it does not have any major implications on what we do or how we prevent transmission. In both situations, masking and barriers are highly effective, and distancing adds an extra measure of protection. These differences do have implications in the hospital or health care setting, where there are certain procedures (especially pulmonary procedures such as bronchoscopy and intubation) that produce aerosol microdroplets, and in these situations, health care workers need to use enhanced protection such as N95 respirator masks and shields.

What about air handling systems?

It is reasonable to evaluate the air handling systems in the courtrooms and other congregate areas, especially places such as the jury assembly areas where people are going to be kept for periods of time. In the “back part” of the courthouse, detention cell areas are potentially risky, because their function by design limits their accessibility, and in especially older buildings, these areas can have low air exchange rates. In all of these areas, it would be worth evaluating the ventilation systems with the primary objective of increasing the number of air exchanges per hour, and increasing the mixture of outside air for each cycle.

In some areas, especially where there are confined spaces which cannot be easily ventilated, HEPA filter units could be an option. These are units which filter particles as small **as .01 microns**, and would capture aerosol particles and droplets. The downside of these units is that some generate heat, and some generate noise, but at the appropriate settings, can be very useful. In general we do not see these being necessary in the larger spaces, such as the courtrooms.

Are there specific metrics for air handling?

The major focus should be on maximizing airflow, and eliminating spaces where there is stagnant air. Buildings should have their air handling/HVAC systems optimized to the highest number of air exchanges per hour that is feasible. The optimal recommendations in large office settings is 6 air exchanges per hour, but we recognize that this may not be possible in buildings with older HVAC systems. Systems should also install the highest grade air filters that are operationally possible (MRV grade). In older buildings in temperate environments, opening windows to enable cross ventilation can also be considered. In areas (eg internal areas) where there is extremely poor ventilation and stagnant air, HEPA filters can be used to improve air hygiene

Air flow ventilation patterns should also be evaluated with the building mechanical engineering team. Ideally, air flow should be optimized so that the currents are not blowing from one group of individuals to another. Vertical flow directions are preferred

Is there a role for Negative Pressure Areas in the Courthouse?

Negative pressure areas are spaces or rooms that are engineered that the air pressure within the room is lower than the air pressure in the areas that are adjacent or surrounding it. The principle is that the pressure differential prevents airborne material disseminating outside of the negative pressure space. In older buildings, negative pressure areas are established when performing asbestos removal, or similar toxin mitigation. In hospital settings, persons with infections that are transmitted by airborne aerosols, such as tuberculosis, are placed in negative pressure isolation. When managing COVID patients in the hospital, negative pressure rooms are used because these patients have severe respiratory infections, are exhaling enormous number of particles, and may need very high transmission risk procedures , such as intubation.

For COVID in community type settings, such as the courts, there is no need for negative pressure areas, if masking and distancing is followed

Cleaning and Surfaces

How often should high touch surfaces, doorknobs tables, arm, rest of chairs be sanitized ?

We recommend that in most cases, the regular cleaning of surfaces can revert to the normal schedule, although high touch surfaces, such as banisters and elevator buttons, should be cleaned several times daily.

The more important point to consider is remembering that infection occurs NOT through the intact skin. Surfaces become important when you bring infected material , usually with your hands, to your nose, mouth or eyes. Therefore, it is more important to frequently perform hand hygiene, as that breaks the critical link. You want to ensure that hand hygiene solution is widely available and easy to use, and that the dispensers are frequently checked to ensure that they are operating.

The importance of hand hygiene

The infection is transmitted through respiratory contact or contact with secretions. The rationale for frequent hand hygiene is to protect yourself from actually in case you touch your face, your eyes or what, or other mucous membrane, the virus does not get transmitted through your skin.

Easy Availability of Hand Hygiene

Easy access promotes frequent use. Sanitizer dispensers available throughout the facility. So they're easy to use, if you walk out of the bathroom and it's right in front of you, it's much easier to use.

Should court security officers and others be using hand sanitizer after each time they touch something should the bins, you know, at the security desk, be washed after each each person goes through?

Even if they are wearing gloves, security officers should be performing hand hygiene frequently, preferably after they touch the belongings or person of different individuals

What about gloves?

Gloves are recommended in situations where there is frequent handling of objects and contact with many different persons and/or their belongings. For example, the security screening areas are a good example, where there is lots of movement, many different persons being processed, and limited time for hand hygiene between encounters.

When wearing gloves it is important not to have a false sense of security. Even with gloves, hand hygiene should be practiced frequently since gloves can become contaminated just as ungloved hands can. It is also important when wearing gloves not to touch your face or mask. When removing gloves, it is important to do hand hygiene immediately afterwards, because your hands may become contaminated with whatever is on the surface of the glove (think of how you pull them off)

When gloves are removed, it is important to do hand hygiene and remember that the gloves protect you, but you can then transmit to others by wearing the gloves.

What about surfaces?

In general we don't regard them as major modes of transmission. The way surfaces are important is if you touch an infected surface, pick up some virus on your fingers and thereby transmitted to your nose or to your mouth or perhaps to your eye. Therefore the critical way to break this transmission chain is

frequent hand hygiene. This virus (and nearly all viruses) do not penetrate through skin. Although periodic disinfection and cleaning of surfaces is recommended we need to be obsessive about it

What about microphones?

Especially now that we are socially distanced, microphones are key elements of any public speaking venue, including courts. We recommend that after each person uses the microphone, that the device be wiped down with a hand hygiene wipe or a cloth with sanitizer. Microphones that cannot be cleaned should be removed from service

What about Masks or Face Shields?

Face masks are a critical intervention for preventing respiratory transmission. Masks are most effective in preventing transmission *from an asymptotically infected person* to others, as masks capture the droplets being exhaled, and are approximately 90% in preventing transmission. Masks also impact *acquisition* (i.e. an uninfected person wearing a mask) but the proportion is not as high, because except when using respirator masks such as the N95, you inhale unfiltered air through the side. Masks need to be worn properly, covering the nose and the mouth.

Which are the right masks to use?

Any advice on what are the right masks to use? There are a wide number of choices now, ranging from gaiters to cloth masks, paper surgical masks and respirator masks such as N95 or KN95. For routine daily use, a medical grade disposable mask, or a multilayer fabric mask with a tight weave are best. Gaiter or single layer cloth masks do not offer as much protection. Masks should be fitted to be as snug as possible, especially around the sides where unfiltered air may be able to be inhaled. Masks that have valves, even if they are filtered, should not be used, as these may allow escape of small exhaled particles.

We've heard some people say they can't use a mask because they have medical issues.

There are almost no medical contraindications to using a mask. The only situations where this is an issue is persons with severe pulmonary disease (eg emphysema or fibrosis); these persons are typically on oxygen and would almost always be excluded from jury service for medical reasons anyway. We have also had persons refuse a mask because of asthma or other issues. In fact, these individuals absolutely should be wearing masks, because of their protective effect, and these individuals are at extraordinary risk for COVID related complications if they get infected.

Can you use Face Shields?

Face shields allow one to see facial expressions and don't hinder communication as much as face masks. They also decrease the number of times the wearer touches his/her nose and mouth, and also afford eye protection. In terms of droplets and aerosols, face shields block forward projection of these microparticles. However, they have a distinct disadvantage-- in contrast to masks which physically trap the particles, with face shields, the droplets can be forced downward and can disperse around the edges, which can be particularly problematic in indoor, poorly ventilated environments.

Our recommendation is that face shields can be a good alternative to masks in specific situations where seeing facial expressions of the speaker is critical and where physical distancing can be maintained. For example, juries and other court participants want to see the facial expressions of testifying witnesses. In these situations, it is reasonable for the witness to use a face shield, and the witness stand should be situated >6 feet away from other individuals. Some courts have also placed plexiglass shielding around the witness stand, as an additional adjunct.

What about Plexiglass around the witness stand?

Ideally, everyone in the courtroom space should be masked and distanced, with 6 feet between persons. Testifying witnesses present a dilemma, as there are compelling reasons for juries and other observers

to be able to clearly see their facial expression. There are two solutions to this dilemma; both assume that the witness stand is >6 feet from any of the jurors, from the judge or other court participants, and that the mask is not used only for the duration of the witness' testimony. Ideally air flow around the witness stand should also be in the direction away from the seated jury.

- 1). Constructing a transparent plexiglass barrier on the witness stand, which extends 2-3 feet above the individual .
- 2). Wearing a transparent face shield, if there is not a plexiglass barrier. If used, the face shields have to start at the forehead and be firmly affixed to the forehead, come down past the cheeks and at least to the level, if not beyond the chin.

In some situations, judges may want to have the witness use both a shield and plexiglass barrier. For other court participants, such as lawyers, judges, and jury members, we do not recommend using face shields without masks .

Should the courts install HEPA filters in the courtrooms and other public spaces?

Generally, conventional air handling is sufficient if all the occupants are appropriately masked and distanced.

What about the defense table, and other similar situations, where the lawyer and client need to speak confidentially?

This is a difficult situation because the two parties need to be in close proximity. First of all, they should be masked. Plexiglass barriers have been proposed, but for this specific situation are problematic. This is one of those situations where the attorney and client may need to accept a slightly elevated risk. We recommend that when they are not in confidential conversation, that they be distanced at the defense table. Furthermore, they should defer any conversations that can take place at another time, e.g. during a recess, in an area where distance can be maintained.

How long will we be distancing and masking?

We're going to be using social distancing mask, wearing for many, many months, even after a vaccine, which we hope to safe and effective becomes available..

Are there any predictive metrics or “phasing” criteria that can be used for planning purposes?

States and localities have developed series of phases for activities, that are typically keyed to “phasing” criteria which are usually published on State Health Department websites. The metrics usually include the testing positivity rate, hospitalization rate and mortality rate. The typical rate bands for testing positivity that are used are >5%, 1-5% and <1%, although these may differ from locality to locality. Positivity rates are dependent on multiple factors, including availability, number of tests performed, and populations tested. However, in general, the higher the positivity rate, the higher the proportion of cases that are freely moving within a community.

In addition to the absolute rates, trends over the previous 2 weeks are important. Increasing testing positivity and hospitalization rates over the previous 2-4 weeks are especially concerning, because they suggest continued spread. When you see improvement, a key issue is not only the exact rate but the sustained trends over time. When loosening COVID related restrictions, we recommend that there be at least 2 consecutive 2-week periods of decreased trends. Furthermore, this process requires substantial public education. There are numerous examples where the general community is enthusiastic about the loosening of restrictions, resulting in less masking and social distancing, and increased COVID risk behaviors, especially in bars and restaurants, resulting in a rebound.

Hospitalization and mortality rates are also used, but they have inherent inaccuracy. At the beginning of the epidemic, infections were seen predominantly in older populations, such as nursing home residents. The disease profile has changed dramatically, and the majority of new cases are now in the 20-40 age group, who have much lower hospitalization and mortality rates, and mortality is further dampened by improved treatments. Hospitalization and mortality also lag case incidence by 2-3 weeks.

Where do you find the Testing Positivity, Hospitalization rates and other data that are important for decision-making?

In the United States, these data are available on the websites of the State and local health departments. The Johns Hopkins coronavirus website also maintains data on a state-by state basis (coronavirus.jhu.edu). In addition, we believe that Court officials should establish a collaborative relationship with the local health department, as there are often data issues which are evolving or require additional interpretation

What about testing if you have been identified as a contact?

Contact exposure would be defined as being within 6 feet for >15 minutes, or in specific situations, being exposed in a high risk situation. High risk situations would include those performing invasive medical procedures which involve exposure to aerosols (eg intubation), or increasingly, known exposures in poorly ventilated indoor spaces without masks or other protection (eg bars, restaurants). If you are notified, you should be evaluated by a health professional, and get tested to define whether you have active infection or not at the time.

What is the testing protocol for someone who has been exposed?

If someone has a high-risk exposure--i.e close contact to a known COVID case for more than 15 minutes (either at one exposure or in aggregate), then independent of testing results, that person must be quarantined for 14 days.

There are some situations where testing may be warranted earlier. The incubation period from exposure to developing symptoms is on average, 4-7 days, and persons will begin shedding detectable virus 1-2 days prior to developing symptoms. Therefore, if you are exposed and test negative at about day 5, you have about a 90% chance that you are not infected. However, for the other 10%, who have a longer latency period, these results may incur a false sense of security.

Jury Service

In organizing jury trials, courts are generally anticipating that more jurors will request to be excused from service than would in normal circumstances, perhaps because they fall into a high-risk category or have childcare obligations in the absence of available daycare. Because many courts plan to be accommodating of these requests, courts may be required to summons significantly more jurors for a trial than they would normally. To avoid having too many people at the courthouse during the jury selection process, however, some courts are considering prescreening jurors about their ability to participate in a trial before they are asked to report to the courthouse.

Jury service traditionally has involved screening large numbers of prospective jurors. In order to do this fairly and safely, a number of key modifications are required. This includes:

- Careful planning to ensure that the Court can host the jury pool safely
- In the jury assembly area, spacing out seats to maintain 6 foot distance
- Optimizing ventilation
- Consider screening jurors in smaller groups
- Conduct initial interviews and voir dire by video

The Trial has Begun:

Time Limitations: Is there any benefit to limiting proceedings to a certain time limit to reduce the risk of transmission? Again, assuming that everybody's wearing masks and six feet apart, but is there a limit.?

In general we don't see much benefit to time limitations, as long as everyone is masked and socially distant. Furthermore, multiple movements also can result in increased exposures, especially if courtrooms are emptied and persons have to spend time in the corridors etc.

What is the current best practice of a jury trial has begun and then a juror tests positive or experiences symptoms. Should the court have immediate access to testing for all jurors and contact tracing?

This is a difficult and stressful situation. However, remember, if everyone is masked and distanced, the risk for transmission is low. We are aware of several cases in courts where this actually occurred, and there were no secondary transmissions. These are situations where coordination with the local health departments is a key part of the response. Health Departments will be very interested in identifying persons who meet conditions of close contact, and they may require quarantine. Under these very controlled conditions, where the jurors and court staff are being closely observed, and testing demonstrates that the individuals are all negative than we support moving ahead with the proceedings in a very judicious and careful manner.

