



THE UCLA VOTING RIGHTS PROJECT¹

Voting and Infection Prevention of COVID-19

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There is a compelling need to reassess the safety and efficacy of our voting practices in the setting of the COVID-19 pandemic. Our government must ensure the right to vote while considering the medical necessity to prevent the spread and ensure the safety of voters and poll workers.

This memo addresses the concerns of transmission of SARS-COV-2, the virus that causes COVID-19 disease, through in-person voting and vote-by-mail, and reviews best practices for voting from a medical expert's perspective.

While it is not clear what the condition of our communities will be in October-November, 2020, some epidemiologists have forecast a possible second wave of COVID-19 infections later in 2020. [1] If and when such an outbreak occurs, it is essential to follow the best practices of social distancing, crowd avoidance, and quarantine as implemented during March 2020 in most states across the country. It is clear this virus is most easily spread through close human contact. While in-person voting might be a realistic option in November 2020, voting by mail ballots would significantly reduce the risk of coronavirus transmission among voters and poll workers.

I. Voting by Mail Is Safe

Generally, voting by mail is a safe, if not safer, alternative than voting in-person in times of a national and global health crisis. Since SARS-COV-2 is highly infectious and transmittable through human to human contact and indirect contact with contaminated surfaces, activities that limit such interactions is paramount to protecting health and human safety.

The United States Postal Service(USPS) released a statement March 22nd which states explicitly that there is currently no evidence of spread of SARS-COV-2 through the mail.[2] This is supported by the Center for Disease Control, the World Health Organization, and the Surgeon General of the United States.[2] Coronaviruses are primarily spread through respiratory droplets that come in contact with the eyes, nose, and mouth of a susceptible person.[3] Coronaviruses

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can also spread when an individual touches a contaminated surface and then touches their eyes, nose, and mouth. [4]

There are several studies on SARS-CoV-2 viability on a variety of surfaces.[5, 6] According to the CDC “because of poor survivability of these coronaviruses on surfaces, there is **likely very low risk of spread** from products or packaging that are shipped over a period of days or weeks at ambient temperatures”. [3]

A study examining the surface stability of SARS-CoV-2 found that this virus can survive for up to 72 hours on stainless steel and plastic.[5] When studying surface stability cardboard, it was found that no viable virus was detectable after 24 hours.[5] This would suggest **no risk of transmission via mail after 24 hours**. Another study specifically found that SARS-CoV-2 was not viable on paper after 3 hours.[6] This further indicates that mail carries an extremely low risk of transmitting SARS-COV-2.

Furthermore, USPS has issued guidelines on how to prevent the spread of illness via surface contaminants. This guidance includes improved hand hygiene and frequent disinfection of workspace.[2] Both epidemiologic and clinical data have demonstrated the efficacy of routine cleaning and disinfection on reducing SARS-COV-2 transmission. A study looking at hospital rooms before and after cleaning showed that there was significant contamination of surfaces before cleaning, but after routine cleaning and disinfection there was no further detection of the virus.[7]

The likelihood of transmission from or to a postal worker is further decreased by attention to hand hygiene and increased social distancing.[2] Postal workers have ceased physical contact with customers and have modified processes for obtaining signatures.[2] In the case of delivering or receiving mail ballots, there is no need for a postal worker to directly interact with the voter, as a signature is not required for home receipt of the ballot. The nature of this virus and the practices of the USPS make vote by mail safe and decrease the risk of transmission of SARS-CoV-2.

Over the years the USPS has developed different emergency preparedness plans that can be utilized during this particular crisis to keep mail safe. For example, in response to the anthrax attacks of October 2001, USPS developed an Emergency Preparedness Plan to protect USPS employees and customers from future biological threats. [8] Since 2005, USPS has had an emergency plan for pandemic influenza in place. [9] The USPS has taken to using ionizing radiation and UV light radiation to sanitize mail delivered to federal government agencies. [10]

UV irradiation can be used to further decrease risk of transmission of coronaviruses, substantially reducing any risk through the mail. Prior studies have investigated the use of UV irradiation to disinfect aerosols and surfaces containing coronaviruses in the same family of viruses that contain SARS-CoV-2. Research investigating coronavirus susceptibility to UV radiation found it was highly susceptible to inactivation by UV radiation at low UV dosage 254 nm UV.[11] This is thought to be due to the viral envelope of coronaviruses and suggests UV irradiation is likely useful for SARS-CoV-2 as well.[11] Another study that examined the effect of UV radiation on SARS virus found that 260 nm UV radiation decreased infectivity decreased

markedly after 15 minutes and was undetectable after an hour.[12] UV irradiation is a process that could be implemented to further decrease the risk of transmission of SARS-CoV-2 through contaminated surfaces.

In response to the COVID-19 pandemic, USPS has stated individual infection control measures are the first line of defense. Although the CDC does not currently recommend individuals who are well, wear facemasks, the Postal Service has stated it will provide employees with surgical masks upon request. Furthermore, postal managers and supervisors are advising employees to follow CDC general guidelines to prevent spreading the virus, these include: Covering coughs and sneezes with a tissue, and throwing the tissue in the trash; avoid contact with eyes, nose, and mouth; additional cleaning and disinfecting of regularly touched items and surfaces; and allowing employees to remain at home when feeling sick.[13]

II. Safety Concerns Posed by In-Person Voting

In-person voting during this pandemic has the potential to increase the spread of the illness among voters and election related workers without proper safety measures in place. During the 2020 Florida primary, two poll workers in Broward County, Florida tested positive for SARS-CoV-2. One of these poll workers was responsible for verification of identification and handled drivers' licenses.[14] As noted above, SARS-CoV-2 can live on plastic and steel surfaces for up to 72 hours such as the plastic of the driver's license.[5] Thus, in-person voting placed these poll workers at risk, as well as voters, for transmission through respiratory droplets and by fomites.[14]

Some polling locations will be open during election season while this pandemic is occurring. All polling locations open during this time must follow the recommendations by the CDC to stay more than 6 feet apart, require hand washing by election related workers, enforce the use of hand sanitizer, and ensure the disinfection of all surfaces including keyboards, touchscreens, polling stations, and identification cards.[3] In a prior report, the UCLA Voting Rights Project recommended changes to in-person voting which should be followed.[15]

There are other measures that could be employed for in-person voting, such as temperature screenings or use of UV radiation to disinfect voting materials.[11, 12] These measures, however, would require thermometers and someone to perform the temperature screening, which could increase risk of spread through respiratory droplets.[3] In a time where some hospitals are scrambling to get enough personal protective equipment for their frontline health workers there is no guarantee that safety equipment voters would be available to perform the screening.[16]

Another issue raised by in-person voting is the mass transportation of voters from their homes to polling locations. Many voters may travel via public transportation and/or ride share which directly conflicts with the recommendation of social distancing.[3] Increased risk of infection due to use of public transportation could disproportionately impact lower income communities who rely on public transportation and would have to choose between risking infection and voting. Universal vote by mail would allow all citizens to stay home and vote without risking community spread.[3] These factors above must be considered when evaluating risk of in person voting compared to the safety of vote by mail.

III. Coronavirus specific guidance should inform policy decisions

Every pathogen is different, and it is important to use guidance from evidence regarding specifically Coronaviruses and SARS-CoV-2

- Coronaviruses are not stable in variable temperatures and not stable when exposed to UV radiation.[6, 11, 12]
- SARS-CoV-2 is viable for *less than 24 hours* on cardboard but is viable longer on plastic and steel.[5]
- COVID-19 is caused by a virus not a bacterium. This is important to differentiate because some bacteria such as *Bacillus anthracis*, the cause of anthrax, can produce spores. Spores make bacteria very stable. SARS-COV-2 does not produce spores and is not stable for transmission in the mail.[17].
- Voting by mail is safer than in-person voting. Voting by mail is an extremely safe alternative that should be used during the COVID-19 pandemic.
- In-person voting should be reduced or avoided to prevent transmission of SARS-CoV-2 during time of an outbreak or pandemic.
- If in-person voting does take place, extensive practices should be implemented to decrease risk of spread of SARS-CoV-2.
- There is no current evidence to suggest risk of transmission of COVID-19 by US Mail. To the contrary, current evidence suggests COVID-19 is very unlikely to be spread through cardboard, paper, or other mail delivery.

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