



COMMENTARY

Masks and thermometers: Paramount measures to stop the rapid spread of SARS-CoV-2 in the United States

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Abstract In the United States, there is currently an exponential growth for the COVID-19 cases. The US president's coronavirus guidelines for America "30 Days to Slow The Spread" are necessary. To effectively curb the rapid spread of SARS-CoV-2, two more control measures facemasks and thermometers are strongly suggested to be included in the Guidelines.

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As of April 15, 2020, in the United States (US), the coronavirus disease 2019 (COVID-19) cases caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)¹ reached 579,005 including 22,252 deaths of this disease.² Since early March this year, there has been an

exponential growth for the COVID-19 coronavirus in the US. All of the measures recommended by Centers for Disease Control and Prevention (CDC) and US president are needed. The current US president's coronavirus guidelines for America "15 Days to Slow The Spread"³ (Fig. 1) were issued on March 16, 2020. The CDC's guidelines are similar to the US president's coronavirus guidelines for America.⁴ Yet, 15 days have since passed, and we are still on an exponential growth curve with no end in sight. During this writing, President Trump announced on March 29, 2020 that the coronavirus guidelines for America "15 Days to Slow The Spread" (now "30 Days to Slow The Spread") would remain

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THE PRESIDENT'S CORONAVIRUS GUIDELINES FOR AMERICA

15 DAYS TO SLOW THE SPREAD

Listen to and follow the directions of your STATE AND LOCAL AUTHORITIES.

IF YOU FEEL SICK, stay home. Do not go to work. Contact your medical provider.

IF YOUR CHILDREN ARE SICK, keep them at home. Do not send them to school. Contact your medical provider.

IF SOMEONE IN YOUR HOUSEHOLD HAS TESTED POSITIVE for the coronavirus, keep the entire household at home. Do not go to work. Do not go to school. Contact your medical provider.

IF YOU ARE AN OLDER PERSON, stay home and away from other people.

IF YOU ARE A PERSON WITH A SERIOUS UNDERLYING HEALTH CONDITION that can put you at increased risk (for example, a condition that impairs your lung or heart function or weakens your immune system), stay home and away from other people.



For more information, please visit
[CORONAVIRUS.GOV](https://www.cdc.gov/coronavirus)

THE PRESIDENT'S CORONAVIRUS GUIDELINES FOR AMERICA

DO YOUR PART TO SLOW THE SPREAD OF THE CORONAVIRUS

Even if you are young, or otherwise healthy, you are at risk and your activities can increase the risk for others. It is critical that you do your part to slow the spread of the coronavirus.

Work or engage in schooling **FROM HOME** whenever possible.

IF YOU WORK IN A CRITICAL INFRASTRUCTURE INDUSTRY, as defined by the Department of Homeland Security, such as healthcare services and pharmaceutical and food supply, you have a special responsibility to maintain your normal work schedule. You and your employers should follow CDC guidance to protect your health at work.

AVOID SOCIAL GATHERINGS in groups of more than 10 people.

Avoid eating or drinking at bars, restaurants, and food courts—**USE DRIVE-THRU, PICKUP, OR DELIVERY OPTIONS.**

AVOID DISCRETIONARY TRAVEL, shopping trips, and social visits.

DO NOT VISIT nursing homes or retirement or long-term care facilities unless to provide critical assistance.

PRACTICE GOOD HYGIENE:

- Wash your hands, especially after touching any frequently used item or surface.
- Avoid touching your face.
- Sneeze or cough into a tissue, or the inside of your elbow.
- Disinfect frequently used items and surfaces as much as possible.

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

School operations can accelerate the spread of the coronavirus. Governors of states with evidence of community transmission should close schools in affected and surrounding areas. Governors should close schools in communities that are near areas of community transmission, even if those areas are in neighboring states. In addition, state and local officials should close schools where coronavirus has been identified in the population associated with the school. States and localities that close schools need to address childcare needs of critical responders, as well as the nutritional needs of children.

Older people are particularly at risk from the coronavirus. All states should follow Federal guidance and halt social visits to nursing homes and retirement and long-term care facilities. In states with evidence of community transmission, bars, restaurants, food courts, gyms, and other indoor and outdoor venues where groups of people congregate should be closed.

Figure 1 The President's Coronavirus Guidelines for America. Source: https://www.whitehouse.gov/wp-content/uploads/2020/03/03.16.20_coronavirus-guidance_8.5x11_315PM.pdf.

in place until April 30, 2020.⁵ However, it is hard to say now that two more weeks of the same measures will likely effectively stop the spread of COVID-19 coronavirus if we do not modify the current guidelines. There are no approved drugs or vaccines for COVID-19 yet, although there are clinical trials going on.⁶ Thus, the prevention to mitigate the rapid spread of SARS-CoV-2 is the important step now.

We believe that masks and thermometers are key measures to curb COVID-19 from rapidly spreading. These two measures are not highlighted in US president's coronavirus guidelines for America "15 Days to Slow The Spread" (Fig. 1). The official CDC guidance initially only recommends that people who feel or are sick, as well as for the health workers and caregivers who must interact with infected individuals on a regular basis should wear masks.^{4,7–11} The thought from these guidelines is that masks do not necessarily protect healthy people from getting infected in a public setting. The official guidelines say that people should stick to frequent hand-washing and maintaining a social distance (>6 feet). Many of the US hospital staff do not wear masks in the working environment even now. However, the recent outbreak rage in US with far more confirmed cases than any other country¹² has put more people in this country now at risk of getting sick.

We strongly suggest that the healthy individuals, especially those engaged in essential business must wear masks regularly, especially in any situation involving more than two people in order to curb the spreading of the COVID-19 virus. This practice will help prevent spread, particularly asymptomatic transmission. We recommend that everyone in the healthcare setting be required to wear masks, including medical staff, support staff, research staff, patients, and visitors. We hope the officials will enforce or put this in the guidelines. According to the current evidence, COVID-19 virus is transmitted easily between people by droplets carried through sneezing and close contact through respiratory tract.¹³ Recent research shows that talking to people and airborne can transmit coronavirus.¹⁴ A very recent study published on April 3, 2020 demonstrated that surgical facemasks could prevent transmission of human coronaviruses from symptomatic individuals.¹⁵ Moreover, presymptomatic or asymptomatic coronavirus carriers could spread the COVID-19 coronaviruses.¹⁶ In addition, keeping social distancing (e.g., stay at least 6 feet away from other people) may not be enough when people are moving around. For example, one person may enter a place where another person has just stayed. As the COVID-19 coronavirus can cause the significant morbidity and mortality,^{1,17} wearing a mask can protect health individual and sick people.

Another quick measure to mitigate COVID-19 rapid spreading is the non-contact handheld cutaneous infra-red thermometer for fever screening. Research shows that 98.6% of COVID-19 patients tested had a fever than normal.^{18,19} Therefore, although it will not screen in every individual, a temperature check can be used as a quick screening tool that is cost-efficient and useful. When people enter public spaces, we must measure their body

temperature to make sure that those identified with a fever get further confirmation by coronavirus test kits,²⁰ stay at home or obtain appropriate medical care if needed.

No single measure will work 100%, but if we use a variety of modalities, especially key measures such as wearing facemasks and temperature screenings are implemented, we can curb the rapid spreading of the COVID-19 virus. We cannot panic during this pandemic, but we all must take effective measures to stop the spread of COVID-19.

Conflict of interest

The authors declare no conflicts of interest.

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