

COVID-19 Control in the United States: The Case for Masking

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On December 8, 2020, President-elect Joe Biden proffered a 3-point plan to address COVID-19 during his first 100 days in office. In an executive order signed January 20, 2021, the day he was sworn in, Biden issued a mandate for all Americans to wear masks on buses and trains crossing state lines, as well as in federal buildings.¹ As of May 2021, with respect to COVID-19, the United States remains the world leader with 33 million of 165 million cases worldwide (20%) and 590,000 of 3.4 million deaths worldwide (17%).² The number of US COVID-19 deaths is now far higher than the number of Americans who died in battle (291,557) during 3 years in World War II, the bloodiest war in history.³

In the spirit of not letting the “perfect be the enemy of the good,” in the words of Voltaire, today the “perfect” is the vaccine but the “good” is masking. Unfortunately, however, masking is practiced by fewer than two-thirds of Americans. In this commentary, we review the benefits of masking and urgently plead for health care professionals to practice masking themselves and to preach this message to all their patients, family, and friends.

During the worst epidemic in more than 100 years,⁴ most Americans trust their health care providers (75%) and academic medical researchers (68%) to act in their interests, but far fewer trust the media (47%) or government (35%).⁵ In fact, the “war on COVID-19” is being fought most successfully, valiantly, and selflessly by the health care providers in hospitals who are doing the most good for the most patients while placing themselves and their loved ones at increased risk.

Health care providers should also be aware of the dire consequences of relying solely on the development of herd immunity due to illness or vaccines.⁶⁻⁹ Specifically, achieving herd immunity by disease spread and vaccination may result in 2 million to 4 million total US deaths.¹⁰ These avoidable premature deaths would occur particularly among the elderly, immunocompromised, and minority populations.¹⁰

In regard to barriers to educating patients about masking, on October 25, 2020, then–Trump White House chief of staff Mark Meadows stated, while practicing his usual custom of being maskless without social distancing, that “we’re not going to control the

ABSTRACT

As of May 2021, the United States remains the world leader with 33 million of 165 million cases worldwide (20%) and 590,000 of 3.4 million deaths worldwide (17%) from COVID-19. Achieving herd immunity by disease spread and vaccination may result in 2 million to 4 million total US deaths. The future perfect of the vaccine should not be the enemy of the present good, which is masking.

Masking, especially when combined with social distancing, crowd avoidance, frequent hand and face washing, increased testing capabilities, and contact tracing, is likely to prevent at least as many premature deaths as the widespread utilization of an effective and safe vaccine.

Worldwide, masking is the oldest and simplest engineered control to prevent transmission of respiratory pathogens. Masking has been a cornerstone of infection control in hospitals, operating rooms, and clinics for more than a century. Unfortunately, since the epidemic began in the United States, masking has become politicized.

All countries, but especially the United States, must adopt masking as an urgent necessity and a component of coordinated public health strategies to combat the COVID-19 pandemic. Any economic advantages of pandemic politics are short-lived and shortsighted in comparison with public health strategies of proven benefit that can prevent needless and mostly avoidable premature deaths from COVID-19.

During the worst epidemic in more than 100 years, most Americans (75%) trust their health care providers. As competent and compassionate health care professionals, we recommend that effective strategies, especially masking, and not pandemic politics, should inform all rational clinical and public health decision-making.

Am J Manag Care. 2021;27(7):e218-e220. doi:10.37765/ajmc.2021.88670

pandemic.”¹¹ This statement would be prophetic without adoption of widespread utilization of public health strategies of proven benefit. In addition to masking, these include social distancing, crowd avoidance, and frequent hand and face washing. Unfortunately, these comments¹⁰ were, perhaps predictably, amplified by subsequent media coverage, including the statement, “Of course, [chief of staff] Meadows told the truth. This is a terrible tragedy. And we mourn those who succumb to it. But it originated in China, not Trump Tower.

And the desperate attempt to politicize it is absurd.”¹² Ironically, on November 6, 2020, Meadows tested positive for COVID-19.¹³

Pandemic politics¹¹⁻¹³ have included menacing assaults on science, the FDA, the CDC, and the health of the US public.¹⁰ Fortunately, responsible health officials have issued scientifically sound positions to try to protect the health of the general public and do the most good for the most people by sounding the alarm for public health strategies of proven benefit.¹⁴

There is cogent evidence that all US health care providers should try to ensure that all their patients practice masking most or all of the time when not social distancing. Masking, especially when combined with social distancing, crowd avoidance, frequent hand and face washing, increased testing capabilities, and contact tracing, is likely to prevent at least as many premature deaths as the widespread utilization of an effective and safe vaccine.¹⁰ The urgency and necessity for this plea derive, in part, from the widely misinterpreted results of a recently published randomized trial.¹⁵ The authors concluded that a “recommendation to wear surgical masks to supplement other public health measures did not reduce the SARS-CoV-2 infection rate among wearers by more than 50% in a community with modest infection rates, some degree of social distancing, and uncommon general mask use. The data were compatible with lesser degrees of self-protection.”¹⁵ The trial was designed to test whether surgical masks conferred a 50% reduction in acquisition of COVID-19; however, only 46% of participants reported wearing a surgical mask as recommended and the primary analysis was not intention to treat. The authors stated that inconclusive results, missing data, variable adherence, patient-reported findings on home tests, no blinding, and no assessment of whether masks could decrease disease transmission from mask wearers to others were major limitations. Above all, although nonsignificant, the findings are compatible with a wide range of outcomes that include a possible 46% reduction in the COVID-19 rate among wearers of surgical masks.

Most individuals become infected with COVID-19 by inhaling virus-containing airborne microdroplets exhaled or coughed by an infected person.¹⁶ Worldwide, masking is the oldest and simplest engineered control to prevent transmission of respiratory pathogens. Masking has been a cornerstone of infection control in hospitals, operating rooms, and clinics for more than a century. In addition,

TAKEAWAY POINTS

- ▶ As of May 2021, the United States remains the world leader with 33 million of 165 million cases (20%) and 590,000 of 3.4 million deaths (17%) from COVID-19.
- ▶ Achieving herd immunity by disease spread and vaccination may result in 2 million to 4 million total US deaths.
- ▶ The future perfect of the vaccine should not be the enemy of the present good, which is masking.
- ▶ During the worst epidemic in more than 100 years, most Americans (75%) trust their health care providers.
- ▶ We urgently plead to health care professionals to practice masking themselves and to preach this message to all their patients, family, and friends.

the value of masking to health care providers was clear during the 2003 epidemic of severe acute respiratory syndrome, a disease closely related to the current COVID-19. Looking to Asia, as part of an effective strategy to combat COVID-19, masking by the public is practiced almost universally at present. During the initial outbreak in Wuhan, China, health care providers who did not wear masks had extraordinarily high chances of developing COVID-19, whereas those who wore masks while caring for patients had much lower risk. In a recently published review of the epidemiology of and risk factors for COVID-19 infection in health care workers, masking was the most effective measure, followed by other personal protective equipment usage.¹⁷ Furthermore, data from countries throughout the world consistently show that universal masking outside the home has contributed significantly to decreasing rates of COVID-19.¹⁸ In the previously mentioned underpowered randomized trial, there was a possible, but nonsignificant, 19% reduction and only 46% of subjects wore a mask.¹⁵

Since the epidemic began in the United States, masking has become politicized. Specifically, the US government recommended against masking of asymptomatic individuals based on lack of efficacy and the perceived need to preserve masks for health care workers.¹⁹ Later, the CDC reversed its course and recommended masking when not social distancing in public. Unfortunately, these early statements regarding not needing to wear masks have continued to the present to be repeated by many US government officials. For these and other cogent reasons, ironically and tragically, the country deemed most prepared for any existential threat in 2016 turned out to be the least prepared for the actual threat in 2020.¹⁰

All countries, but especially the United States, must adopt masking as an urgent necessity and a component of coordinated public health strategies to combat the COVID-19 pandemic. Any economic advantages of pandemic politics are short-lived and shortsighted in comparison with public health strategies of proven benefit that can prevent needless and mostly avoidable premature deaths from COVID-19. Further, the benefits of masking are likely to exceed those of any effective and safe vaccine or drug therapy for COVID-19. Nationally coordinated efforts at masking in the United States and worldwide, as well as other preventive strategies of proven benefit, are increasingly urgent. Based on the pandemic politics having been and still being practiced by the government at

the federal and state levels, by the time any nationally coordinated efforts are implemented, it may be too late to mitigate and contain the epidemic. With the continuation of pandemic politics, avoidable premature deaths from COVID-19 in the United States will likely exceed the fatalities from the influenza pandemic that occurred in this country from 1918 to 1919.¹⁰

Although we commend the masking strategy of the current president, the United States was still experiencing almost 1 death from COVID-19 every other minute as of May 2021.² Further, this public health strategy of proven benefit will need the wholehearted support of all health care professionals. In that regard, health care providers should remain cognizant of the words of Hippocrates, “primum non nocere” (“first, do no harm”), perhaps the earliest expression of medical ethics in the Western world. With this in mind, individual rights would be viewed in the context of the freedom of others to be free—for example, free from secondhand smoke or from the increased morbidity, mortality, and costs to others from failures to wear seatbelts. It is important to note that the future perfect of the vaccine should not be the enemy of the present good, which is masking. As competent and compassionate health care professionals, we recommend that effective strategies, especially masking, not pandemic politics, should inform all rational clinical and public health decision-making. ■

Acknowledgments

The authors are indebted to Jeanne McCabe, BBA, MBA, for advice and help.

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Source of Funding: None.

Author Disclosures: Dr Hennekens reports serving as chair of data and safety monitoring boards for Amgen, DalCor, Novartis, and UCB; serving as a consultant for Collaborative Institutional Training Initiative, Pfizer, FDA, and UpToDate; receiving royalties for authorship or editorship of 3 textbooks and as coinventor on patents held by Brigham and Women’s Hospital; and an investment management relationship with The West-Bacon Group within SunTrust Investment services, which has discretionary investment authority. The remaining authors report no relationship or financial interest with any entity that would pose a conflict of interest with the subject matter of this article.

Authorship Information: Concept and design (DGM, SMA, JJS, TAA, DLD, RDS, CHH); acquisition of data (SMA, CHH); analysis and interpretation of data (DGM, SMA, CHH); drafting of the manuscript (DGM, SMA, JJS, TAA, DLD, RDS, CHH); critical revision of the manuscript for important intellectual content (DGM, SMA, JJS, TAA, DLD, RDS, CHH); administrative, technical, or logistic support (SMA, TAA, RDS, CHH); and supervision (CHH).

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