



Mask Mandates: The Controversy Continues

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Abstract

On March 11, 2020, the world came to a standstill in a truly unprecedented manner. Shut-down schools, empty grocery aisles, and barren streets shifted from unfamiliarity to the new normal. Perhaps the most significant of these changes was the widespread usage of protective masks to curb the spread of SARS-CoV2, more commonly known as COVID-19. Along with the constant influx of changes resulting from the COVID-19 pandemic has been an onslaught of controversy regarding whether individuals should be legally required to wear masks. As of March 11, 2022, several states have announced that masks are no longer mandated. From what has been observed, there are two major stances on this subject — those who oppose the lifting of the mandate, and those who are in favor. This has provided a unique opportunity to demonstrate the tenuous relationship between public policy and scientific fact, and how the two are not mutually exclusive. This analysis seeks to dissect these views and present the findings through an evidence-based lens.

Introduction

When the pandemic first began, much was unknown about the transmission mechanism of SARS-COV2. It was known that the virus was transferred from human to human, but it was not until the fall of 2020 that the CDC reported that SARS-COV2 is an airborne virus, meaning that the respiratory droplets of an infected individual can be transmitted to another through actions such as speaking, coughing, and sneezing. An infectious exposure constitutes inhaling viral particles, the deposition of the virus on mucous membranes (i.e. mouth, nose, eyes), or touching one's mucous membranes with contaminated surfaces¹. Given that the transmission is respiratory in nature and the face has many points of potential viral entry, experts proposed the implementation of masking around other people to minimize the spread of COVID-19. Initially, due to resource limitations, cloth masks and bandanas were acceptable for this purpose. As time went on and cases reached record-breaking highs, there was a transition to surgical masks and N95s, which are specially designed to have a high filtration capacity to block small respiratory particles².

Mask controversy

As of March 12th, California is one of the many states that have lifted mask mandates. Those who are in favor of this decision, alongside even anti-vaxxers, have voiced their opinions as to why it was the right choice. Perhaps one of the most commonly discussed reasons is the inconveniences that come with mask use, including difficulty breathing, communicating, and many complaining of the discomfort of wearing a mask for long hours³. There are many voices that believe that requiring masks is an infringement of civil liberties, as it takes away one's sense of bodily autonomy³. In a survey published by the National Panel Study of COVID-19, it was found that 24% of Americans refrained from wearing a mask due to discomfort, while 40% did not wear one because they simply believed it was their fundamental right to decide⁴. These two factors alone accounted for more than half of the respondents who participated in the study.

Others believe that masks perpetuate fear. This is especially a topic of concern among minority groups, with African Americans reporting the fear

of presumed criminality due to the racial discrimination that still prevails in the U.S. today⁵. In addition to racial concerns, the mask itself has become a *de facto* symbol of the pandemic, a visual representation and reminder of the loss and trauma that has ensued, as well as the uncertain future⁶. Many believe that the perception of risk can be equally, if not more, detrimental than the risk of being infected with the virus itself, demonstrating the importance of sociological factors when it comes to understanding the American mask controversy.

Another salient impact of the pandemic has been that of politics being brought to the forefront of public discussion. While some believe that the decision to wear a mask should be purely based on scientific data, the reality is that partisan political affiliation has a significant impact on the matter. According to public opinion polls, those on the more liberal end of the political spectrum are more likely to wear masks compared to conservatives³. Published in the journal *Preventive Medicine*, a study analyzing COVID-19 related risky behaviors and party affiliation found that Republicans were less likely to wear a mask for 4 of the 6 activities included in the study⁷. This is also supported by a probability-based online survey by the Gallup Panel, reporting that 70% of Republicans wear a mask in indoor settings, compared to a rate of 97% in the Democrat population⁸.

The opposing view regarding the lifting of the mask mandate is that it is simply too early to make this transition. Those with this view have a variety of reasons as to why mask use should be continued, the common thread being safety. As of April 2022, COVID-19 transmission has been significantly lower; however, cases and COVID-related deaths still occur regularly⁹. Furthermore, despite low transmission rates, certain locations such as gyms, restaurants, and coffee shops are considered to pose a much higher risk than others¹⁰. Public transportation also ranks high on this list, with its high risk being associated with the close proximity to others as well as the exposure to frequently touched surfaces¹¹. Another point presented is the fact that humans are often asymptomatic carriers of COVID, which contributes to the high transmissibility of the virus. In these cases, wearing a mask has been reported to be highly effective in mitigating the spread¹².

Expert opinions indicate that it is likely too soon to eliminate mask usage completely¹³. According to sources from Johns Hopkins University, while COVID-19 cases and hospitalization rates are declining, there are risks to consider when assessing the removal of the mask mandate. CRC vaccinology lead, Dr. William Moss, describes this as a time to practice “cautious optimism,” the hope being that cases will continue to decrease, and any additional variants will not overcome the immunity that has been acquired through natural infection as well as vaccination¹³. That being said, it has been shown that around 35% of the population still remains unvaccinated, despite the U.S. having one of the highest COVID mortality rates when compared to those of other countries. This discrepancy is exacerbated by the disparity seen in vaccination between younger and older populations (Fig 1). Medical director of the Johns Hopkins Biocontainment Unit, Brian Garibaldi, expresses particular concern over school-aged children, with reports indicating that only 25% of children between the ages of 5-11 are fully vaccinated; these numbers are even lower in the younger cohort¹³. Considering the FDA approval of COVID-19 booster shots for all adults in November of 2021, these numbers will likely increase as time goes on¹⁸. Similarly, other populations of concern are the immunocompromised, those with comorbidities, and the elderly¹⁴. Those who are highly susceptible to respiratory infections would greatly benefit from masking, ideally using a KF94 or KN95 mask for maximal protection, despite the recent lifting of restrictions. Experts have also vocalized the importance of addressing COVID-19 misinformation. This includes myths such as the idea that herd immunity makes vaccination unnecessary, or the claim that heated water supposedly protects one from contracting the virus. Many of these erroneous claims have been observed on social media platforms, ultimately adding to the already existing confusion surrounding masking; these issues can be addressed through the thorough reform of online data sharing regulations¹⁵.

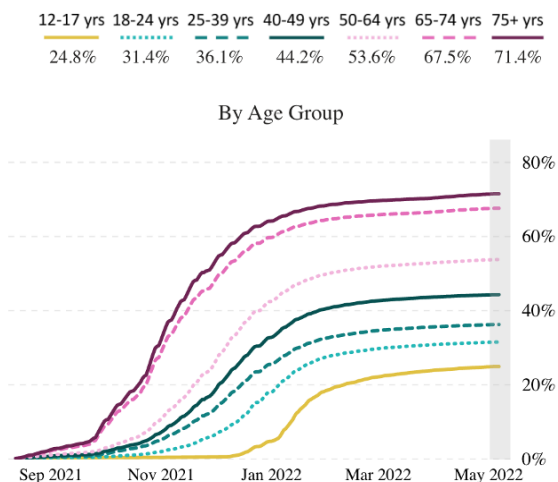


Figure 1. Percentages of fully vaccinated people receiving a first COVID-19 booster dose.

Image credits: covid.cdc.gov

Conclusion

Based on this analysis, it can be concluded that the decision to wear a mask cannot be adequately addressed using an all-or-nothing approach¹⁵. While cases and COVID-related deaths have been significantly reduced, the pandemic persists, and the virus remains unpredictable, as it is still evolving into novel variants¹⁴. Currently, due to relatively low transmission rates, it is the logical choice to provide more autonomy to the public. It is important to note that this does not mean eliminating mask wearing under every circumstance, but rather that the decision should be made individually, after weighing risks and benefits. Co-director of the National Preparedness Leadership Initiative, Dr. Leonard Marcus, reinforces the idea that low risk is not the equivalent of no risk, which is critical to keep in mind during this period of transition¹⁴. Certain cohorts that are at an increased risk of contracting the virus, such as immunocompromised individuals or those with underlying health conditions, should ideally continue to mask at this time. Vaccination status is also a crucial factor to consider, as increasing these rates could further reduce the necessity of masking. As of now, the US has much room to improve in this area. Ultimately, regardless of one's stance on masking, it is a practice that is proven to be effective in mitigating the spread of the virus (Fig 2).

FIGURE. Trends* in 7-day rolling average of new daily COVID-19 cases per 100,000 population among mask-mandated† and non-mask-mandated counties before (June 1–July 2)⁹ and after (July 3–August 23)⁹ the governor’s executive order requiring masks — Kansas, June 1–August 23, 2020

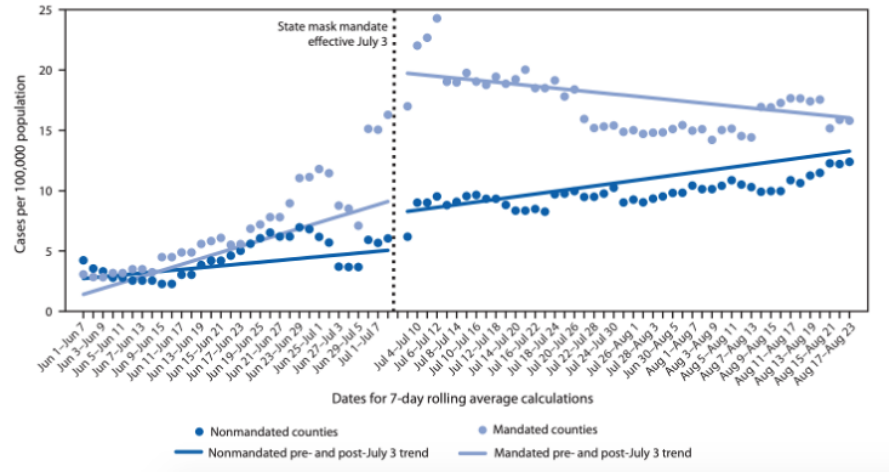


Figure 2. Average of new daily COVID-19 cases in non-mask-mandated vs. mask-mandated counties¹⁹. Image credits: cdc.gov

Moving forward, it will be important to address COVID-19 misinformation which has unfortunately plagued the news media and various other online platforms. Moreover, the importance of making decisions based on scientific fact rather than political opinion should be emphasized to the public as well. Further research is needed to identify novel strategies to combat the spread of false information, with the optimization of online data showing great promise in this regard¹⁶.

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