*8 February 2021*

# ***BRIEF19***

*A daily review of covid-19 research and policy*

## ***RESEARCH BRIEFING***

**Mask mandates associated with fewer hospitalizations in the weeks after implementation.**

Spoiler: a new study has found that mask mandates made a difference, especially in preventing covid-19-related hospitalizations, especially among middle-aged adults.

But let's focus on methods for a moment. Testing the effects of "non-pharmacologic interventions," or NPIs, meant to curb the covid-19 pandemic has been tricky business. It's not so easy as measuring case counts before and after a particular government policy goes into effect. Why? Because often, the implementing of a particular policy occurs around the same time that the general population has become sufficiently alarmed so as to modify their behavior willingly. Therefore, what is being measured is not the effect of a policy, but the rational behavior of a populace. Many behaviors changes occur over the period of a few weeks. This means that drawing a line at the moment an official government policy goes into effect and assessing before versus after can produce misleading results. In addition, using something seemingly reasonable like coronavirus case counts can also pose a problem. If the number of tests increases around the same time as a policy like a mask mandate or shelter-in-place goes into effect, case counts will rise, even if the rates are really dropping. That's why many researchers have chosen test positivity (the percent of tests that are positive) as the metric of choice. Of course if testing increases rapidly, that too can muddy the findings, as suddenly lower rates are detected as a result of that rollout, rather than the true number of cases in a community. Deaths are a reasonable metric to study, but they are a lagging indicator and are likely to miss significant disease burden in younger persons, a noticeable fraction of whom might become sick enough to miss work or even need hospitalization, but who fortunately die at far lower rates. Long story short? Hospitalization rates are perhaps the perfect outcome measure for testing the effect of something like a mask mandate. These events reflect the prevalence of serious disease in a way that is agnostic to testing policies. People either need to be hospitalized or they do not.

The new study published in the US Centers for Disease Control and Prevention's journal *Morbidity and Mortality Weekly Report* (*MMWR*), reports on precisely this. Researchers followed trends in hospitalization in areas where mask mandates went into effect. Rather than a strict before-and-after analysis, the researchers broke things down into four time periods: 4 weeks or more before a mask mandate, the 27 days leading up to the mask mandate, the 20 weeks after the mandate, and the period 3 weeks or more after the mandate. They also broke the population up into three age groups (adults 18-39, 40-64, and 65 or older). Mask mandates were associated with statistically relevant declines in covid-19-related hospitalization growth among adults ages 40-64 in the 20 days following the mask mandate. For adults ages 18-64, that effect was seen only 3 weeks or more after the enacting of the policy. Of note, the policies were *not* observed to have a significant impact on adults 65 and older, a finding that the authors chalk up to the fact that mask wearing was already known to be high in this demographic in many regions regardless of mandates. As always, the implication of such results much be taken in context. If one were to read these data and conclude that masks do not help people older than 65, that would be an incorrect interpretation. Rather, persons over 65 are leading the way on masks, and the rest of us would be wise to learn from them.

*—Jeremy Samuel Faust, MD MS*

## ***POLICY BRIEFING***

**Managing the second pandemic—information overload!**

As quickly and widely as the novel coronavirus has spread, a second pandemic has been raging: the viral spread of information. Dubbed as early as April as an "infodemic" by the World Health Organization (WHO), quickly circulated data of varying accuracy and quality has complicated the development and public acceptance relating to the realities of covid-19 and its possible treatments.

In response, the WHO has convened meetings with more than one hundred experts around the world to develop guidelines and standards for a new scientific discipline known as "infodemic management." Aimed at both combating low-quality information while simultaneously promoting high-quality, initial recommendations fall into five streams.

- Measuring and monitoring the impact of infodemics during health emergencies.
- Detecting and understanding the spread and impact of infodemics.
- Responding to and deploying interventions that protect against the infodemic and mitigate its harmful effects.
- Evaluating infodemic interventions and strengthening resilience of individuals and communities to infodemics.
- Promoting the development, adaptation, and application of tools for managing infodemics.

The goal is to use these guidelines as a reference to identify key research and evidence gaps to evaluate and handle infodemics in the future. Eventually, the WHO plans to develop a toolset to train individuals in the management of infodemics. If successful, identifying and promoting best practices for the next pandemic will be less of a challenge than during covid-19. *The World Health Organization*.

*—Brief19 Policy Team*

*Kimi Chernoby, MD, JD, Policy Section Founder, Joshua Niforatos, MD Research Section Editor, Frederick Milgrim, MD, Editor-at-Large, Barb Cunningham, Copy-editor, Anna Fang, Week-in-Review. Megan Davis, social media. Kane Elfman PhD, Publishing and Design. Jeremy Samuel Faust MD MS, Editor-in-Chief. http://www.brief19.com/ Twitter: @brief_19 submissions@brief19.com. Brief19 is a daily executive summary of covid-19-related medical research, news, and public policy. It was founded and created by frontline emergency medicine physicians with expertise in medical research critique, health and public policy.*