

Respiratory Protection for the General Public: Perspectives from Public Health

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January 25, 2021



Respiratory Protection During the COVID Pandemic



- Mask use initially discouraged by federal leadership
- Following endorsement by CDC in March, quickly politicized
- As impact of Stay-at-Home orders (economic, mental health, educational) became apparent, low economic impact non-pharmaceutical interventions became a primary option for curbing the pandemic

Efforts at Education

- Why the switch in guidance?
 - Can the government be trusted?
- What sorts of masks can be considered?
- Where do they need to be worn
- How beneficial are they to user and others?
- Can they be effectively used by those other than healthy adults (eg, medical conditions, kids)?



Trends in community-based observations of mask-wearing by Tri-County Health Department, Summer 2020



Mask-Wearing Observational Data

Percentage of People Observed Wearing a Mask

Adams, Arapahoe, and Douglas Counties

CO State Mask Mandate: effective July 17, 2020 | TCHD Mask Order: effective July 24, 2020



Impact of State Face Mask Mandates on COVID-19



COVID-19

By Wei Lyu and George L. Wehby

Community Use Of Face Masks And COVID-19: Evidence From A Natural Experiment Of State Mandates In The US

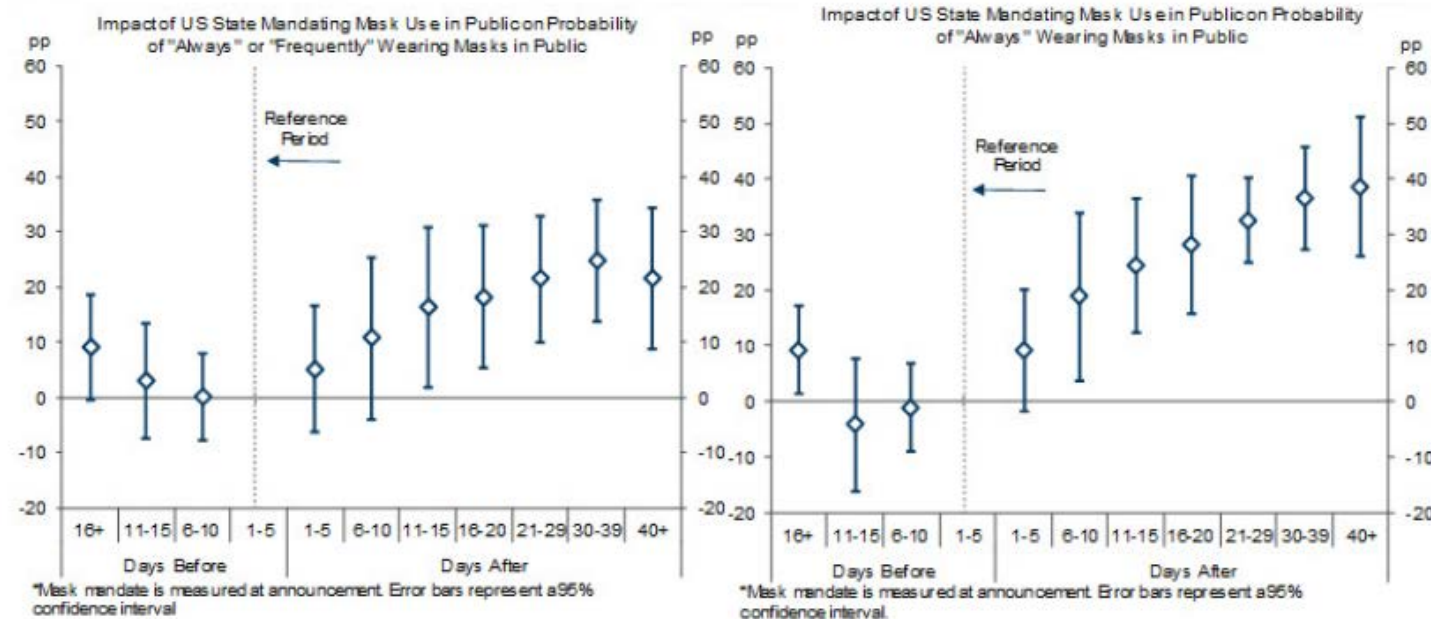
ABSTRACT State policies mandating public or community use of face masks or covers in mitigating novel coronavirus disease (COVID-19) spread are hotly contested. This study provides evidence from a natural experiment on effects of state government mandates in the US for face mask use in public issued by 15 states plus DC between April 8 and May 15. The research design is an event study examining changes in the daily county-level COVID-19 growth rates between March 31, 2020 and May 22, 2020. Mandating face mask use in public is associated with a decline in the daily COVID-19 growth rate by 0.9, 1.1, 1.4, 1.7, and 2.0 percentage-points in 1–5, 6–10, 11–15, 16–20, and 21+ days after signing, respectively. Estimates suggest as many as 230,000–450,000 COVID-19 cases possibly averted By May 22, 2020 by these mandates. The findings suggest that requiring face mask use in public might help in mitigating COVID-19 spread. [Editor's Note: This Fast Track Ahead Of Print article is the accepted version of the peer-reviewed manuscript. The final edited version will appear in an upcoming issue of Health Affairs.]

DOI: 10.1377/hlthaff.2020.00818
HEALTH AFFAIRS 39,
NO. 8 (2020): 1–7
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The People-to-People Health
Foundation, Inc.

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Exhibit 4: Mask Mandates Raise the Percentage of People Who “Always” or “Frequently” Wear Masks by Around 25pp in the 30+ Days After Signing



Source: YouGov, Goldman Sachs Global Investment Research

Goldman Sachs: Impact of Face Mask Mandates



The Tell

Goldman Sachs has done the math and a national mask mandate to halt the spread of coronavirus would have a big impact on the U.S. economy

Published: July 6, 2020 at 9:26 a.m. ET

By Mark DeCambre

Mask wearing could save the domestic economy from a 5% hit to GDP, Goldman says

290



A national mask mandate? Is it workable in the U.S. GETTY IMAGES



Referenced Symbols

DJIA +1.78% ▲ SPX +1.58% ▲ COMP +2.21% ▲

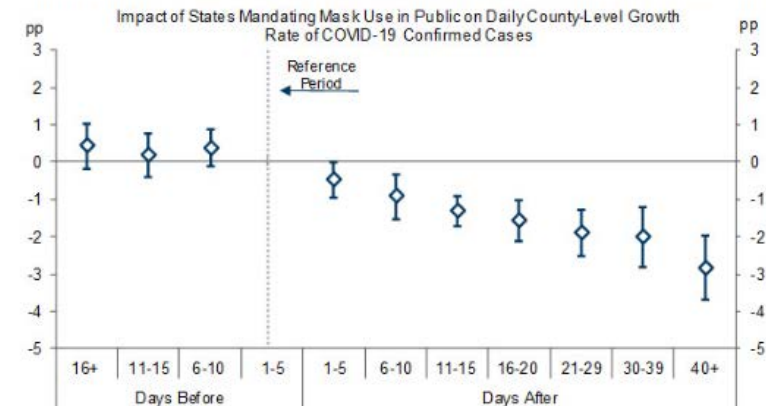
Wearing a mask has become a uniquely hot-button issue in the U.S., which finds itself in the throes of a coronavirus crisis that appears to be drifting out of control by the day.

Check out: [Watch out for these 3 new coronavirus symptoms](#)

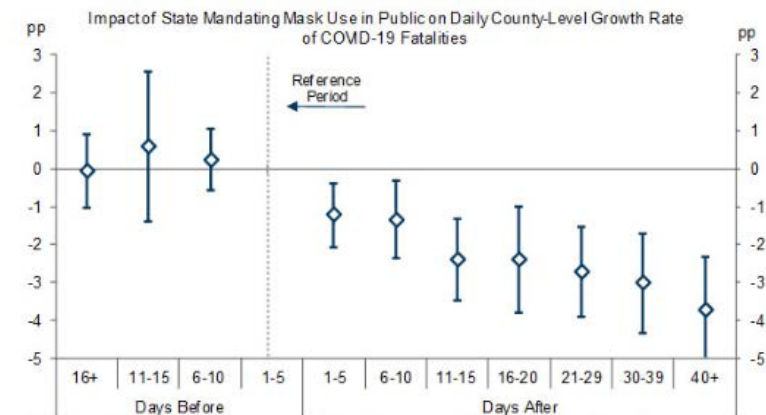
However a recent report from Goldman Sachs projects that a lack of a national policy mandating the use of facial coverings throughout the U.S. is delivering an unnecessary hit to the domestic economy.

A team of economists lead by Jan Hatzius, chief economist at Goldman, makes the case that a national face-mask mandate could partially substitute for renewed lockdowns, as COVID-19 infections flare up in a number of southern and western states in the U.S., that would "otherwise subtract 5% from gross domestic product." (See attached chart):

Exhibit 5: Mask Mandates Are Associated with Large Declines in COVID-19 Case and Fatality Growth



*Mask mandate is measured at announcement. Error bars represent a 95% confidence interval



*Mask mandate is measured at announcement. Error bars represent a 95% confidence interval

Source: YouGov, Goldman Sachs Global Investment Research

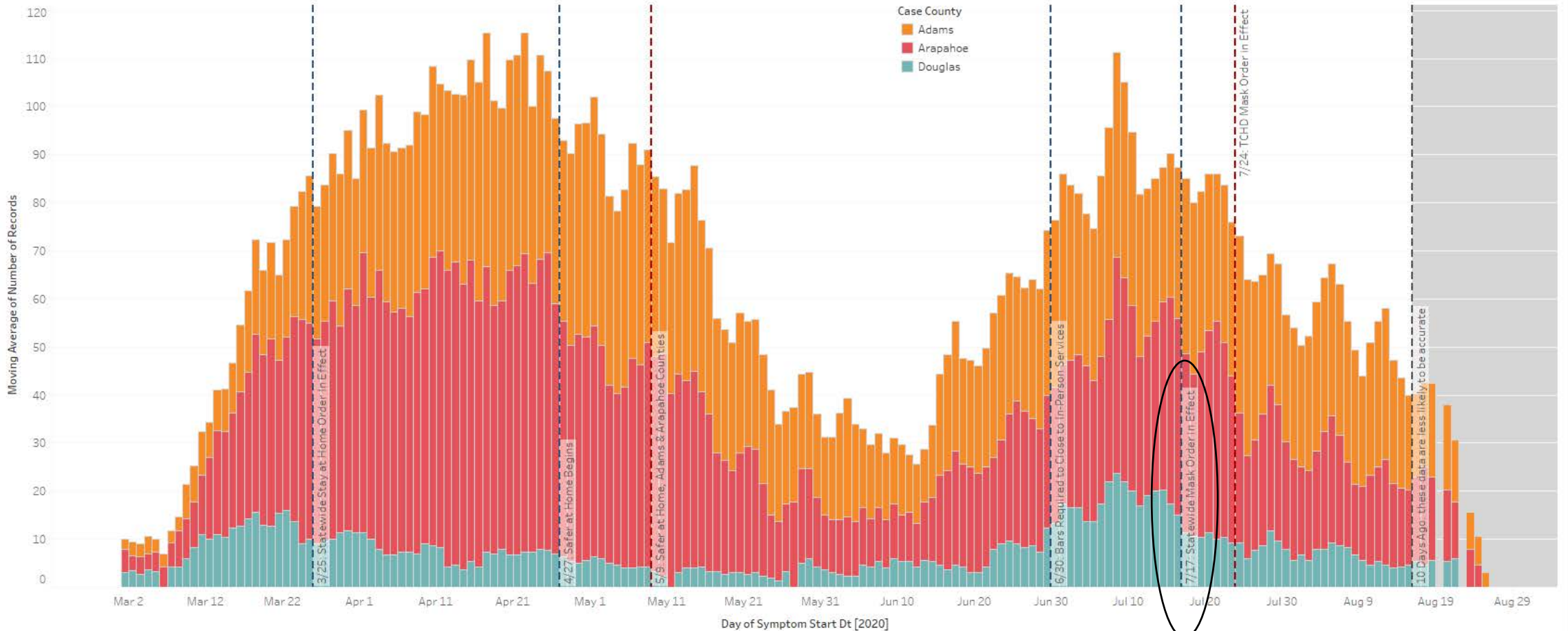
Association of Face Mask Mandates with COVID-19 Cases, Tri-County Health Department Area, Colorado



Daily Reported Cases by Symptom Start Date, by County

3-day rolling average

Grayed-out area is a 10-day lag; the usual amount of time between symptom onset date and the date a case is reported.



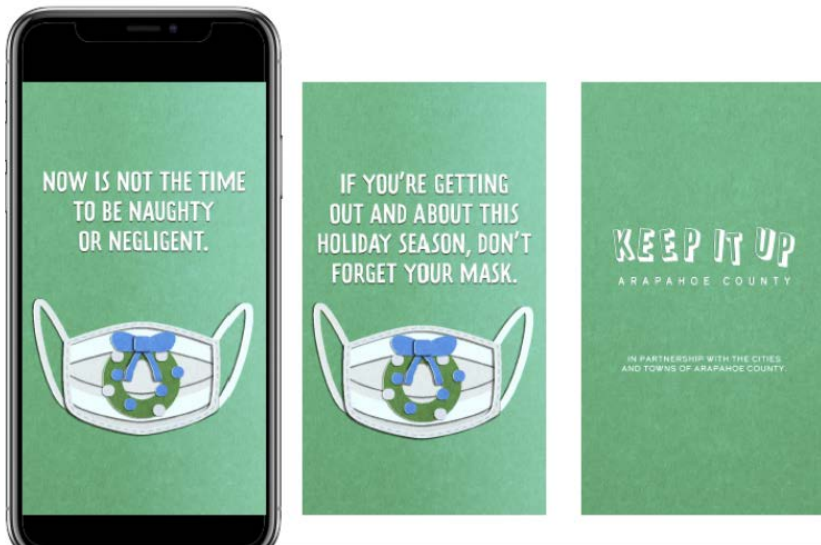
Message Testing among Minority Communities: Top Two Messages



How convincing are these statements as reasons to follow public health guidelines and laws to help stop the spread of coronavirus or COVID-19?	All	Among those 51% who strongly agree with public health orders	Among the 29% smwht agree	Those 20% Neither/ Disagree
5A. Some people can't stay home because of their jobs. We all owe it to grocery workers, doctors and nurses, and other essential workers to do our part. Let's stop the spread of COVID-19 to protect them.	49%	69%	35%	14%
1. We can keep our families safe by keeping our distance from others, wearing a mask, and washing our hands. Doing these things can help us protect the people we love like our parents or grandparents.	45	68	30	7

Ongoing Evolution of Public Messages

- Messaging needs to be ongoing, multi-modal, culturally targeted
- Appeals to altruism can work
- Shaming, politicization doesn't work



Are you masking
up?



Find the other 5 at
www.tchd.org/PracticeSafeSix

¿Utilizas tu
mascarilla?



Encuentre las otras 5
medidas de seguridad aquí
www.tchd.org/PracticeSafeSix

Timing is Everything: Considering Respiratory Protection from Wildfire Smoke During the COVID Pandemic



The East Troublesome fire burns just a few miles from Granby in the early hours of Thursday morning, Oct. 22, 2020.

Hart Van Denburg/CPR News

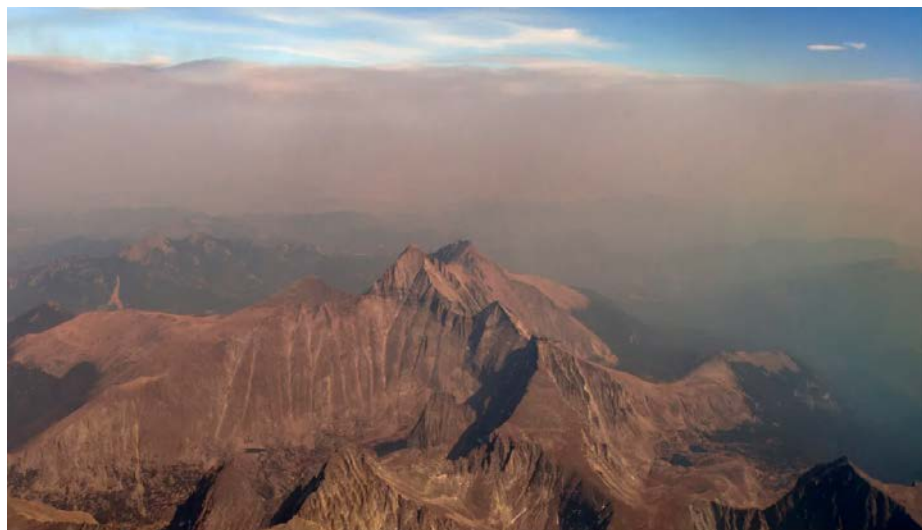


Will Your COVID-19 Mask Protect You from Wildfire Smoke?



Wildfire smoke above San Francisco created an eerie orange sky earlier this month. Getty Images

- People in the West now have to protect themselves not only from the novel coronavirus, but from wildfire smoke as well.
- Health experts say an N95 mask is your best bet for protecting yourself from both the novel coronavirus and wildfire smoke.
- Research shows KN95 masks are just as effective.



What Supports Does Public Health Need to Effectively Communicate?



- Readily available “respiratory protection 101” for baseline understanding of uses in variety of settings
- Context and target audience-specific information, available for “just in time” use and consistently delivered
- Clear explanation of the range of options (eg, avoiding the perfect being the enemy of the good)
- Materials adaptable for easy use and branding

Learnings from the Pandemic: Largest Natural Experiment in Promoting Respiratory Protection in World History

- Collateral benefit of mask wearing on other respiratory infections, especially those for which highly effective vaccines not available
- Could more widespread use of masks during subsequent annual influenza seasons reduce transmission and maintain “masks are useful” norms?
 - Such norms could be useful if/when another respiratory pandemic occurs
- Other uses to support norms
 - “Bad air” days due to smoke, air pollution
 - Commuter cycling
 - Common courtesy if going out with mild URI symptoms

