

Viewpoint: Anti-vaccine backlash is not going away — and its long term consequences are grim

As of January 25, 2022, some 40% of Americans [1] have not been fully vaccinated. [2] This, notwithstanding valiant efforts for over a year at persuading vaccine uptake. The impacts are now apparent. The US death toll [3] is averaging 2500 cases a day – and rising, at least for now. Because of widespread vaccine resistance, the President has attempted to mandate vaccines. In addition to those refusing vaccines, we now have a separate group of individuals who oppose vaccine mandates.

Everyone should agree that the better course of action would be to persuade timely vaccine uptake rather than mandate. The frisson arises over how many people can be vaccinated in a timely manner – and what to do if adequate levels of vaccination are impossible – a situation [CNN](#) reports is indeed the case, and a situation those opposing a vaccine mandate summarily ignore.

Various reasons have been proffered both for anti-vax and an anti-mandate stance, some of which overlap. Some have a degree of validity – such as the desire for autonomy and confusion regarding the importance of the booster. Some are unconscionably false and misleading. Some objections grasp at windmills, such as claiming the lack of efficacy of the COVID vaccine based on a press conference report of one small, preliminary study, now contradicted by later reports. These latter reports indicate the boosters confer a definitive [benefit](#), although the extent of the preventive nature against Omicron is not yet clear and may wane over time.

For the moment, let's address the claims of the anti-mandaters, many of whom are personally pro-vaccine but resent incursions on their autonomy.

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Is persuasion the answer?

To assuage the disconnect between their pro-vaccine beliefs and their antipathy to mandating vaccine coverage, the anti-mandators rely on two propositions:

- that persuasion works and is sufficient to timely vaccinate at an adequate level, and/or
- that mandates backfire

Persuasion proponents cite anecdotal reports showing people can be persuaded. On the other hand, at least one [peer-reviewed](#) scientific study published in *Vaccine* demonstrated that it is *persuasion* that backfires. How could this be?

Counter anti-vax speech may "[backfire](#)," a term-of-art denoting cementing the mis-message,

thereby escalating the problem.

The answer is that anti-vaxxers are not monolithic; for some, persuasion might well work – for others, it won't – ever.

To understand the disconnect between anti-*mandate* claims and hard data regarding actual vaccine uptake (see below), or rather the lack of vaccination, one must understand the anti-vaxxers. Based on my research, I've identified eight categories of vaccine-refusniks, which I've divided into two groups:

Those Arguably Susceptible to Persuasion:

- The generally confused or ill-informed or those co-opted by the persistent, persuasive rhetoric of the [anti-vax industry](#).
- Those who feel threatened, and as Prof. Stephen Porges notes, react emotionally, “thinking with their reptilian brain.”
- The [conspiracy theorists](#), seeking a sense of control by conjuring a cabal.
- Those who've suffered [abuse](#) or adverse consequences in childhood and don't trust authorities, such as the government.

The Intractably Vaccine-Resistant:

While it may be possible, with carefully constructed persuasion techniques, to convert the susceptible, the Intractably Vaccine-Resistant are impossible to win over. The intractable derive more than “rightness” in their vaccine-refusal choice; their sense of identity and livelihood is inextricably dependent on their views.

They include:

- The [grifters](#) and their network who make a [pretty penny](#) of their wares and wherefores augmented and enabled by social media.
- The mothers (could be fathers, too, but so far, I've only identified mothers) desperately seeking to blame someone for their children's autism. These parents ... “have relied on the profound power of storytelling to infect an entire generation of parents with [fear and doubt](#).”
- The iconoclasts and contrarians deriving their personal identity from challenging accepted mainstream views.
- The [party-adherents](#) deriving their sense of identity from the views of the political or religious groups to which they affiliate. Indeed, partisanship has been a key predictor of vaccine receptivity.

[Vaccines] bring up issues of identity and tribalism that feel a lot like politics.
– Professor Brendan Nyhan

Even the most sophisticated persuasion techniques cannot overcome these additional *real* identity-defining benefits. Further, while persuasion will not affect these people, it may have an adverse (dangerous) impact on those whose views are not intractable.

For people who mistrust vaccination, [learning the facts](#) may make the problem worse.

According to [studies](#) done by Emily K. Vraga & Leticia Bode, carefully constructed persuasion techniques may work to address specific aspects of the false scientific underpinnings of aberrant COVID beliefs (such as that hot baths relieve it) but do little to address their overall result. Overriding views against vaccination continue, unshaken, even after their foundations are removed.

Other [researchers](#) have shown that merely repeating debunking messages to defuse misinformation may paradoxically make people *more* convinced of their closely-held beliefs, picking and choosing arguments that bolster their views. This has been dubbed the “[backfire](#)” effect. Several [peer-reviewed](#) studies have shown this is the case for vaccines. One article published in *Pediatrics* concluded that:

Correcting myths about vaccines may not be an effective approach to promoting immunization.

– Professors Brendan Nyhan, Jason Reifler, Sean Richey, and Gary L. Freed, MD

The data

Hard data confirms that efforts at vaccine persuasion have not been particularly successful. According to the [Mayo Clinic](#), vaccine and booster uptake have remained relatively stagnant over the last year. And it doesn't look like it will improve:

Among the 29% of US voters who are unvaccinated, 83% say they do not plan to get the lifesaving shots...

– [CNBC survey](#).

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The dangerous mutation of anti-mandate views

Anti-mandaters also seem to ignore the virus-like flavor of their vaccine rhetoric, including the long-range effects. For example, the long-term effects of the COVID disease are becoming increasingly apparent, and not just in children. A new peer-reviewed study in the [British Medical Journal](#) just reported that in addition to post-viral fatigue, one-third of adults over 65 suffered serious new post-disease sequelae, including respiratory failure and dementia, after infection with COVID.

Like the viruses themselves, anti-mandate viewpoints are contagious, mutate, and have long-term effects. These views are now infecting requirements for pre-school vaccination- currently required in all 50 states — threatening to usurp time-venerated public health practice and risking the health of children and their caretakers.

Last week, legislators in Kansas signaled an intent to significantly [weaken](#) all pre-school vaccine requirements, including polio, diphtheria, and measles vaccines— based on a *parental* say-so of religious objection (i.e., not the children's views).

Under [the bill](#), a school or day care could not investigate the beliefs of a parent who claimed religious exemptions from any vaccine mandate.

The bill was sponsored by [vaccine skeptic](#) Sen. Mark Steffen, a physician currently under investigation by the state's medical licensing panel. In other jurisdictions allowing religious objections, these beliefs still must be proven to be sincerely held. Not so in Kansas, at least per the proposed rule. (Six states have now eliminated the religious exemption entirely for pre-school vaccination).

The current [bill](#) is said to be similar to one enacted by Kansas in November:

[which] would require an employer to grant an exemption requested in accordance with the bill based on sincerely held religious beliefs without inquiring as to the sincerity of the request.

Future shock

By far, a worse effect of the contagious anti-mandate stance is the proclaimed intent and optimism of Kansas legislators to pass a bill to eliminate *all* [vaccine requirements](#) for pre-schoolers.

There is, of course, a twisted logic in extending COVID-19 vaccine exemptions to other inoculations and medicines. ... it makes no sense to make kids get shots to prevent polio and then claim COVID-19 vaccines are tyranny.

– Kansas City Star Editorial Board, February 2, 2022

The connection between those opposed to COVID's vaccine mandates and removing the requirement for childhood vaccines is clear – and troubling. (You can read more about Kansas [here](#)).

What's the impact of attenuating the stringency of vaccine exemptions?

In a word, shattering:

There is an inverse association between [nonmedical exemption](#) rates and MMR vaccine coverage of kindergarteners ... States with higher overall nonmedical exemption rates have lower MMR vaccine coverage.

– [Olivia Benecke](#), and [Sarah Elizabeth DeYoung](#)

Lower vaccine coverage translates into more measles, mumps, rubella, diphtheria, and whooping cough. And increasing cases often result in [pandemics](#), such as occurred with measles in 2018-2019. That pandemic resulted in over 1200 cases in the US, cost New York City, one epicenter, over \$8 million to contain, and resulted in scores of kids hospitalized with encephalitis and pneumonia. [4]

Failure to own up to the impossibility of voluntarily vaccinating our citizens in a timely and effective manner is lemming-like. As to whether vaccine mandates do work, hard data shows that they do.

Notes:

[1] [US COVID-19 vaccine tracker](#) [2] [Only 40% of fully vaccinated Americans have received a booster shot, CDC says](#) [3] [COVID cases are plummeting, and deaths could decline soon](#) [4] Barbara Pfeffer Billauer [Religious Freedom vs. Compelled Vaccination: A Case-Study of the 2018–2019 Measles Pandemic- or The Law as a Public Health Response](#), SSRN DOI: 10.2139/ssrn.3775590 forthcoming CUA

Law Review.

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