**RESEARCH LETTER**

**US State-Level Legal Interventions Related to COVID-19 Vaccine Mandates**

Mandates can increase vaccine uptake, but their effectiveness is associated with who is covered, penalties, and exemptions. The US federal government recently required federal employees to be vaccinated against SARS-CoV-2 and developed standards for large employers. However, individual states traditionally take the lead in regulating public health via vaccine mandates. Some states have attempted to introduce requirements to increase uptake of COVID-19 vaccines. However, others have attempted to impede COVID-19 vaccine mandates. Most efforts have been considered by legislatures; also, some governors and regulatory agencies have issued executive orders. We assessed state-level legal interventions to promote or impede COVID-19 vaccine mandates since the beginning of the pandemic.

**Methods |** Data were gathered between August 9, 2021, and September 15, 2021, about legal interventions since January 2020. Our unit of analysis, a legal intervention, includes proposed and enacted bills and laws, and enacted executive-level legal instruments. For each state, initial internet searches identified news stories containing vaccine, vaccination, COVID-19 vaccination, mandates, bills, or state mandates. Positive results informed searches via LegiScan and states’ online legislative databases. Our content analysis grouped together those legal interventions seeking to impede vaccine mandates and those seeking to facilitate them. We then subcategorized the domain that the intervention sought to regulate: employment, school entry, vaccine passports, and others. The “others” category included attempts that were broad, vague, or did not fit into the other categories. If a single intervention fit in multiple categories (eg, Arizona’s HB 2423, which would create vaccination exemptions for both employment and school attendance), it was counted in both categories. In addition, we coded whether the initiated legal intervention had been enacted. Executive orders were counted as always enacted. We then performed qualitative analysis to identify and enumerate (1) the mechanisms by which the legal interventions sought to impede governments or organizations from mandating vaccines (eg, restricting government funds from mandatory vaccination programs) and (2) enforcement tools for transgression.

**Results |** As of September 15, 2021, 46 states proposed or enacted 148 legal interventions to impede or facilitate vaccine mandates (Figure). Of these interventions, 19 were administrative or executive actions. More interventions were undertaken to impede mandates (88.5% [131/148]) than to facilitate them (11.5% [17/148]) in each category analyzed (Table): employment (impede: 81.4% [48/59]; facilitate: 18.6% [11/59]), school entry (impede: 80.0% [28/35]; facilitate: 20.0% [7/35]), vaccine passports (impede: 97.4% [38/39]; facilitate: 2.6% [1/39]), and others (impede: 100.0% [32/32]; facilitate: 0% [0/32]). Even though interventions to impede mandates were more common than those to facilitate them, interventions to facilitate mandates were more likely to be enacted (70.6% [12/17]) than those to impede them (32.8% [43/131]).

Our qualitative analysis identified a variety of mechanisms used to impede mandates, such as ensuring that driver’s license renewal was not affected by vaccine status and preventing government funding of mandates. Enforcement tools included facilitating citizen lawsuits against municipal governments that introduce mandates and firing, fining, or imprisoning violators. Some states proactively created exemptions or rights of refusal for any future mandates or established protections against discrimination based on vaccination status. Legal interventions in 13 states cited lack of Food and Drug Administration approval as a reason to impede vaccine mandates.

**Discussion |** Recent US state-level legal interventions to facilitate or impede vaccine mandates have had moderate success. While most interventions aimed to impede mandates, the majority were not enacted. In contrast, most of the interventions proposed to facilitate mandates were enacted. However, given the higher number of interventions aimed at impeding mandates, more were ultimately enacted than interventions to facilitate mandates. Study limitations include that the frequency of interventions that addressed
mandates in multiple domains (eg, employment and education) was not analyzed, nor was the consistency of individual states’ approaches to mandates. Future work should address these issues and trace the processes by which state-level legal interventions are formulated.

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6. Immunizations; Exemption; Requirements, HB 2423, 55th Leg (AZ 2021).

### Table. Legal Interventions Impeding and Facilitating Mandates and Number Enacted

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