TITLE
 State Vaccine Mandates for COVID-19 – An Emerging Disparity Between Childcare Providers and School Teachers
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CONTRIBUTOR'S STATEMENT

Dr. Patel conceptualized the study, designed the study, performed data collection, contributed to data interpretation, and drafted the initial manuscript. Profs. Omer and Gilliam also conceptualized the study, designed the study, contributed to data interpretation, and contributed to critical revision of the manuscript. All authors approved the final manuscript as submitted and agree to be accountable for all aspects of the work.

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WORDS

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I. INTRODUCTION: On December 22, 2020, the Advisory Committee on Immunization Practices (ACIP) issued guidelines for the allocation of the coronavirus disease-2019 (COVID-19) vaccine.¹ Childcare providers and K-12 school teachers, as designated 'frontline essential workers,' were recommended for early vaccination. Despite ACIP recommendations, some states² chose only to prioritize school teachers, sending the message that childcare providers' occupational risk was less than that of school teachers and other frontline essential workers. More recently, on August 11, 2021, California became the first state to require COVID-19 vaccination of school teachers, but excluded childcare providers. To better understand this emerging disparity, we characterize state vaccine mandates for childcare providers versus school teachers.

II. METHODS: To determine which states had issued legislative and/or regulatory directives requiring vaccination of childcare and/or school personnel (as of November 1, 2021), we reviewed official archives of executive orders for all 50 states and the District of Columbia (DC) and COVID-19 state databases maintained by the National Conference of State Legislatures³ and the National Academy for State Health Policy⁴. For each state with legislative or regulatory directives, we collected information on issue date and compliance deadline, type (e.g., executive order, public health order), issuer (e.g., governor, public health officer), availability of vaccine exemptions and testing alternatives, and acceptable proofs of vaccination.

III. RESULTS: Ten states (including DC) had issued executive-branch directives requiring either COVID-19 vaccination or routine testing for school teachers, of which only five included childcare providers (no states had issued directives for childcare providers alone). No states had passed legislation requiring COVID-19 vaccination. Three states required COVID-19 vaccination without a routine testing alternative; six states allowed for both vaccination and routine testing to fulfill the directive's requirement; and one

state (New York) required routine testing with opt out vaccination for those who objected. Five states did not specify any exemptions to vaccination, with the rest allowing medical and/or religious belief exemptions and none allowing personal belief exemptions. All states required formal proof of vaccination either in the form of an attestation from a healthcare provider, a signed CDC vaccination card, and/or a record from a state immunization registry; no states allowed for personal attestation to support receipt of vaccination. The results can be found summarized in the table.

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IV. CONCLUSION: While ten states (including DC) have issued directives requiring either COVID-19 vaccination or routine testing among school teachers, only half include childcare providers. This emerging trend suggests an unwarranted disparity between childcare and school settings in states' efforts to promote vaccination, as the argument in favor of vaccinating the former is at least as strong as that of the latter for several reasons. First, both staff and children in childcare programs may be at higher risk for contracting COVID-19 than those in schools, given the congregation of infants and young children who are both ineligible for vaccination and possibly less effectively adherent to nonpharmaceutical interventions (e.g., masking, social distancing, handwashing). Second, childcare providers have a lower COVID-19 vaccine uptake compared to school teachers (78% versus 90% as of late Spring 2021⁵). Finally, childcare providers skew more heavily minority, and therefore may be at greater risk for COVID-19-related morbidity and mortality (17.3 and 19.3 percent of childcare personnel are Black and Hispanic versus 12.1 and 13.0 percent of school personnel, respectively⁶). To ensure equitable consideration for the health and safety of childcare providers and school teachers alike, states should consider expanding directives to include childcare providers—as has been done by both New Jersey and Illinois—to bridge the COVID-19 vaccination gap between childcare providers and school teachers.

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VI. TABLES & FIGURES

Table: States Mandating COVID-19 Vaccination and/or Testing for Childcare and School Settings														
State	Type of Congregate Setting		Directive				Provision of Exemptions and/or Alternatives to Vaccination				Acceptable Proofs of Vaccination			
	Childcare	K-12 Schools	Issuer	Туре	Date Issued	Deadline to Comply	Medical Exemption	Religious Belief Exemption	Personal Belief Exemption	Routine Testing Alternative	Personal Attestation	Attestation from Healthcare Provider	Signed CDC Vaccination Card	Record from State's Vaccination Registry
California	No	Yes	State Health Agency	Public Health Order	8/11/21	10/15/21	Not Specified ¹	Not Specified ¹	Not Specified ¹	Yes	No	Yes	Yes	No
Connecticut	Yes	Yes	Governor	Executive Order	8/19/21	9/27/21	Yes	Yes	No	Yes	No	Yes	Yes	Yes
District of Columbia	Yes	Yes	Mayor	Executive Order	9/20/21	11/1/21	Yes	Yes	No	No	No	No	Yes	Yes
Delaware	No	Yes	State Health Agency	Emergency Secretary's Order	10/15/21	11/1/21	Not Specified ¹	Not Specified ¹	Not Specified ¹	Yes	No ²	No ²	Yes ²	Yes ²
Hawaii ³	No	Yes	Governor	Proclamation	8/5/21	8/16/21	Not Specified ¹	Not Specified ¹	Not Specified ¹	Yes	Not Specified ⁴	Not Specified⁴	Not Specified ⁴	Not Specified ⁴
Illinois ⁵	Yes	Yes	Governor	Executive Order	Schools: 9/3/21 Childcare: 10/22/21 ⁵	Schools: 9/19/21 Childcare: 12/3/21	Yes	Yes	No	Yes	No	Yes	Yes	Yes
New Jersey⁵	Yes	Yes	Governor	Executive Order	Schools: 8/23/21 Childcare: 9/20/21 ⁵	Schools: 10/18/21 Childcare: 11/1/21	Not Specified ¹	Not Specified ¹	Not Specified ¹	Yes	No	Yes	Yes	Yes
New York State ⁶	No	Yes	State Health Agency	Determination	9/2/21	9/2/21	Not Specified ¹	Not Specified ¹	Not Specified ¹	Yes ⁴	No	Yes	Yes	Yes
Oregon	No	Yes	State Health Agency	Temporary Administrative Order	8/19/21	10/18/21	Yes	Yes	No	No	No	Yes	Yes	Yes
Washington State	Yes	Yes	Governor	Proclamation	8/18/21	10/18/21	Yes	Yes	No	No	No	Yes	Yes	Yes

¹ Many states' directives did not list whether they allowed for medical, personal belief, and/or religious belief exemptions to vaccination; given that all these states allowed for a routine testing alternative to vaccination, this is likely because the expectation was for the unvaccinated to simply undergo routine testing (in place of pursing an exemption to vaccination)

² Delaware's directive does not explicitly state acceptable proofs of vaccination, however it does specify that vaccinated staff must "show proof of vaccination in a manner consistent with Division of Public Health Guidance." The Division of Public Health website mentions the acceptability of the CDC vaccination cards and the existence of a state immunization registry to verify vaccination status. There is no mention of the acceptability of either a personal attestation or an attestation from a medical provider in support of vaccination.

³ Hawaii's directive requires public employees to vaccinate or undergo routing testing, and so would include only public-school teachers (private school teachers would presumably be excluded)

⁴ Hawaii's directive requires proof of vaccination however does not specify the acceptable proofs

⁵ Illinois and New Jersey initially issued directives covering only school teachers, however then issued additional directives that expanded vaccination and testing requirements to also cover childcare providers

⁶ New York state's directive is unique and mandates weekly testing with opt out vaccination, unlike the remaining 9 states and DC which mandate vaccination either with or without a routine testing alternative