Introduction

The Centers for Disease Control and Prevention (CDC) recommends that all US health care personnel (HCP) get vaccinated against influenza annually. While the CDC and other organizations urge influenza vaccination for all HCP, not all hospitals mandate it. In national surveys of hospitals in 2013 and 2017, influenza vaccination mandates increased from 44% to 69% in nonfederal hospitals, yet remained nearly absent (1% to 4%) in US Department of Veterans Affairs (VA) hospitals. We sought to ascertain how influenza vaccination requirements for HCP have changed since 2017, especially as mandatory HCP vaccinations were widely discussed during the COVID-19 pandemic.

Methods

This survey study is part of a multiyear, cross-sectional survey project that asks infection preventionists across the US about health care–associated infection prevention practices. Using the same national random sample as the 2017 survey wave, beginning in April 2021 we sent a survey (eAppendix in Supplement 1) to 881 nonfederal general medical and surgical hospitals with intensive care units and all 127 VA hospitals. Survey responses were anonymous. Return of the survey served...
as participant consent. The University of Michigan and VA Ann Arbor Healthcare System Institutional Review Board approved this study.

The survey included the question, Does your hospital mandate health care workers to receive annual influenza vaccination? Declination or opt-out reasons, mask-wearing requirements, and penalties for noncompliance were also assessed. Descriptive statistics were conducted, and aggregate responses from the 2017 and 2021 surveys were compared. $\chi^2$ tests were used for comparisons. $P < .05$ was considered statistically significant, and hypothesis tests were 2-sided. Analyses were performed in January 2024 using Stata SE 18.0 (StataCorp LLC).

Results

The overall response rate was 48% (486 respondents from 1008 nonfederal and VA hospitals in the sample). Fifteen respondents (10 from nonfederal, 5 from VA) did not answer the influenza vaccination mandate question and were excluded, leaving 471 respondents (405 from nonfederal, 66 from VA) for the analysis. Questions about influenza vaccination policies for HCP are presented in the Table. Nonfederal hospitals reporting mandatory influenza vaccinations for HCP increased slightly but not significantly, from 69% (365 of 526) in 2017 to 74% (299 of 405) in 2021 ($P = .14$). In VA hospitals, mandatory influenza vaccinations increased significantly, from 4% (3 of 73) in 2017 to 96% (63 of 66) in 2021 ($P < .001$).

Discussion

Although mandating influenza vaccination for all HCP remains controversial, this study found a significant increase in VA hospitals requiring vaccinations for HCPs in recent years. Although there was a slight increase in mandates among nonfederal hospitals, mandates in VA hospitals increased substantially and are now nearly universal. This increase follows the implementation of Veterans Health Administration directive 1192.01 in August 2020, which explicitly required VA HCP to either receive influenza vaccination or obtain an exemption annually as a condition of employment.4

The findings demonstrate that many hospitals have made institutional commitments to increase vaccination coverage among HCP through mandates. While mandates are a strategy to increase vaccination rates among HCP, they may not be wholly effective in the COVID-19 era. Recent data showed that vaccination rates among HCP, which were increasing before the COVID-19 pandemic (89% in 2017-2018 to 91% in 2019-2020), have steadily decreased during the pandemic (86% in 2020-2021 to 81% in 2022-2023).5 Common vaccine hesitancy issues (eg, concerns about safety, mistrust of employers and authorities, and violation of personal autonomy) may have affected this shift.

Study limitations include the moderate response rate, self-reporting bias, and shortcomings of cross-sectional comparisons. Still, the findings demonstrate the value of mandates as a strategy for increasing HCP vaccination rates. Under the principles of nonmaleficence and beneficence, health care institutions and individual HCP have an ethical responsibility to promote universal vaccination of staff6 as a means to ensure patient safety.
Author Affiliations: Veterans Affairs (VA) Ann Arbor Healthcare System, Ann Arbor, Michigan (Greene, Fowler, Saint); Department of Internal Medicine, University of Michigan Medical School, Ann Arbor, (Greene, Linder, Saint); VA/University of Michigan Patient Safety Enhancement Program, Ann Arbor (Greene, Fowler, Saint); Infectious Disease Section, VA Ann Arbor Healthcare System, Ann Arbor, Michigan (Linder).

Author Contributions: Dr Greene had full access to all of the data in the study and takes responsibility for the integrity of the data and the accuracy of the data analysis.

Concept and design: Greene, Fowler, Saint.

Acquisition, analysis, or interpretation of data: Greene, Linder, Fowler.

Drafting of the manuscript: Greene.

Critical review of the manuscript for important intellectual content: All authors.

Statistical analysis: Greene.

Obtained funding: Saint.

Administrative, technical, or material support: Fowler.

Supervision: Greene, Saint.

Conflict of Interest Disclosures: Dr Greene reported receiving grants from the US Department of Veterans Affairs (VA) Patient Safety Centers of Inquiry during the conduct of the study. Ms Fowler reported receiving grants from the Veterans Health Administration (VHA) National Center for Patient Safety during the conduct of the study. Dr Saint reported receiving grants from the VA Ann Arbor Patient Safety Center of Inquiry during the conduct of the study. No other disclosures were reported.

Funding/Support: This study was supported by a grant from the VHA National Center for Patient Safety, VA Patient Safety Centers of Inquiry (Dr Saint).

Role of the Funder/Sponsor: The funder had no role in the design and conduct of the study; collection, management, analysis, and interpretation of the data; preparation, review, or approval of the manuscript; and decision to submit the manuscript for publication.

Data Sharing Statement: See Supplement 2.

REFERENCES


SUPPLEMENT 1.

eAppendix. Translating Healthcare-Associated Infection Prevention Research into Practice Survey 2021

SUPPLEMENT 2.

Data Sharing Statement