To the Editor—Influenza in healthcare personnel (HCP) may lead to absenteeism and nosocomial outbreaks.1,2 The Centers for Disease Control and Prevention, the Advisory Committee on Immunization Practices, and the Healthcare Infection Control Practices Advisory Committee recommend annual immunization of HCP.3 During the coronavirus disease 2019 (COVID-19) pandemic, influenza immunization was emphasized vigorously in hope of reducing the burden of respiratory illnesses, medical visits, and hospitalizations that would further strain the healthcare system. We compared influenza vaccine uptake and patterns of declination waivers among HCP before and during the COVID-19 pandemic, and we identified demographic or occupational roles that may be associated with influenza vaccine declination.

At University of Texas Southwestern Medical Center, all HCP are required to complete the annual Seasonal Flu Survey in ReadySet (Axion Health, Broomfield, CO), our employee health software database. On the annual seasonal flu survey, HCP can agree to receive the vaccination at mobile vaccination kiosks or occupational health clinics, upload documentation if vaccinated elsewhere, or decline vaccination by selecting yes or no to 1 or more commonly cited reason for declination. During the 2020–2021 influenza season, additional resources such as video series, campus briefings, and town halls were utilized to highlight the importance of influenza vaccination to all HCP. In September, biweekly video series hosted by executive leadership were dedicated to the dual threats of COVID-19 and influenza. The president’s biweekly campus briefings highlighted the importance of influenza vaccine, and the emergency operations center sent weekly e-mails to remind HCP of the ongoing influenza campaign.

HCP demographics, occupational role, influenza vaccine uptake, and reasons for declination were obtained for influenza seasons between 2019 and 2021. Data were analyzed using SPSS Statistics version 25 software (SPSS, Armonk, NY). Differences between means were compared using the Student t test, and proportions were compared using χ² tests. Variables that were statistically significant were analyzed by multivariate logistic regression. All tests were 2-sided, and P < .05 was considered statistically significant. This study was exempt from institutional review board review under category 4.

Influenza vaccination among healthcare personnel during the coronavirus disease 2019 (COVID-19) pandemic

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Vaccination uptake rate declined significantly during the COVID-19 pandemic, with 13,853 (55.7%) HCP vaccinated, 1,027 (4.1%) declined, and 10,010 (40.2%) with incomplete surveys during the 2020–2021 influenza season compared with 15,757 (63.5%) vaccinated, 664 (2.7%) declined, and 8,393 (33.8%) with incomplete surveys during the 2019–2020 influenza season (P < .01). Safety and/or side effects were the most common reason for declining, followed by “vaccine does not prevent flu,” and “vaccine gives flu” (Table 1). In our multivariable analysis, occupational role was associated with influenza declination for both the 2019–2020 (P < .01) and the 2020–2021 influenza season (P < .01). Physicians and advanced practice providers had low influenza declination rates (OR, 0.20; 95% CI, 0.14–0.29), whereas personnel in nutrition services (OR, 3.95; 95% CI, 2.82–5.53) and administrative personnel (OR, 1.55; 95% CI, 1.29–1.86) had high declination rates (Table 1).

Despite efforts to raise awareness on the importance of influenza vaccination during the COVID-19 pandemic, our influenza vaccination rate declined significantly during the COVID-19 pandemic. The reason for this decline is unclear, but it is plausible that universal masking as well as increased number of HCP working from home may have contributed. Prior studies have reported various approaches to increasing influenza vaccination rates among HCP with varying success.4–6 Hospital policies requiring influenza vaccination among all HCP have been shown to dramatically improve vaccination rates.4 Nonmandatory strategies that involve education, peer-to-peer vaccination, mobile carts, use of declination forms, and prospective audit and feedback have been shown to improve vaccination uptake as well.5,6 Although reasons for declination included religious objections or medical reasons, the second and third most cited reasons for declination were related to the misinformation that vaccine causes influenza or that vaccine does not prevent influenza, confirming that even medically informed individuals are influenced by misinformation regarding vaccine efficacy and safety.7,8 Improving influenza vaccination uptake will require targeting common reasons for declining vaccination and tackling misinformation about vaccine efficacy and safety through educational interventions, peer advocacy, and prospective audit and feedback.

Although influenza vaccination uptake may not be directly reflective of the COVID-19 vaccine uptake, prior surveys have demonstrated that the most significant predictor for the acceptance of COVID-19 vaccine was acceptance of influenza
vaccine.\textsuperscript{7,8} Although vaccine acceptance among HCP is higher than among non-HCP, vaccine skepticism and hesitancy are common among medical staff.\textsuperscript{7,8} In our study, HCP who are female, and among non-HCP, vaccine skepticism and hesitancy are common in the fight against COVID-19. This information may provide guidance on target groups regarding vaccine efficacy and safety.

This study has several limitations. A high proportion of HCP did not complete the annual seasonal flu survey. HCP who were pre-employment, part-time workers, and/or contractors were included to complete the annual seasonal flu survey, and it is possible that they may have received their influenza vaccine elsewhere. Although race and ethnicity have been shown to be contributing factors to vaccine hesitancy, we were unable to obtain these data due to the limitations of our employee health system. Finally, the annual seasonal flu survey did not capture data for determining whether factors related to the COVID-19 pandemic may have contributed to the decline in influenza vaccination uptake and increase in incomplete surveys. It remains unclear whether the decline in influenza vaccination uptake will remain sustained in years to come, and additional studies will be necessary to determine the specific impact of COVID-19 on increased declination of influenza vaccination.

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References