Symptomatic SARS-CoV-2 in our HCW population. In relation, the higher incidence of SARS-CoV-2 in HCWs, this equalizes the mean duration of illness did not differ between groups over four years; this equalizes the higher incidence of SARS-CoV-2, and did not differ between HCWs and non-HCWs. While SARS-CoV-2 emerged as a major pathogen in both groups, HCWs were more likely to have it identified in a higher proportion of HCWs than non-HCWs (17% vs 12%, p < 0.01). Influenza was isolated in similar proportion of HCWs and non-HCWs (3% vs 4%). Each group reported similar ILI duration and severity (p > 0.01). Of those experiencing ILI, SARS-CoV-2 was identified as a cause of ILI, suggesting increased risk of respiratory pathogens, and occupy an important epidemiologic position in the COVID-19 pandemic. PAIVED, a multicenter, multiservice study assessing influenza vaccine effectiveness in the Department of Defense over the four consecutive influenza seasons (2018-22), provides an opportunity to describe influenza-like illness (ILI) experience and assess the impact of SARS-CoV-2 in HCWs compared to non-HCWs. PAIVED participants were randomized to receive either egg-based, cell-based, or recombinant-derived influenza vaccine and then surveyed weekly for ILI. At enrollment, participants provided key demographic data including whether they were HCWs with direct patient contact. ILI was defined as a priori as 1) having cough or sore throat plus 2) feeling feverish/having chills or having body aches/fatigue. Participants with ILI completed a symptom diary for seven days and submitted a nasal swab for pathogen detection. Study recruitment was conducted from September-January over four consecutive years.

Methods. PAIVED participants were randomized to receive either egg-based, cell-based, or recombinant-derived influenza vaccine and then surveyed weekly for ILI. At enrollment, participants provided key demographic data including whether they were HCWs with direct patient contact. ILI was defined as a priori as 1) having cough or sore throat plus 2) feeling feverish/having chills or having body aches/fatigue. Participants with ILI completed a symptom diary for seven days and submitted a nasal swab for pathogen detection. Study recruitment was conducted from September-January over four consecutive years.

Results. Of 13188 eligible participants enrolled, 4819 (36%) were HCWs. Overall, HCWs were more likely to be female (43% vs 31%), active duty military (86% vs 69%), and to identify as white (61% vs 56%). HCWs more commonly reported ILI than non-HCWs (25% vs 21%, p < 0.01). Of those experiencing ILI, SARS-CoV-2 was identified in a higher proportion of HCWs than non-HCWs (17% vs 12%, p < 0.01). Influenza was isolated in similar proportion of HCWs and non-HCWs (3% vs 4%). Each group reported similar ILI duration and severity (p < 0.01).

Conclusion. In a prior analysis of the 2019-20 PAIVED season, HCWs were more likely than non-HCWs to report ILI, have shorter illness duration, and isolate influenza A (H1N1). The propensity for HCWs to report ILI persisted over the four years. While SARS-CoV-2 emerged as a major pathogen in both groups, HCWs were more likely to have it identified as a cause of ILI, suggesting increased risk of symptomatic SARS-CoV-2 in our HCW population. Influenza incidence was lower than that of SARS-COV-2, and did not differ between HCWs and non-HCWs. Mean duration of illness did not differ between groups over four years; this equalizes the higher incidence of SARS-CoV-2 in HCWs.

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