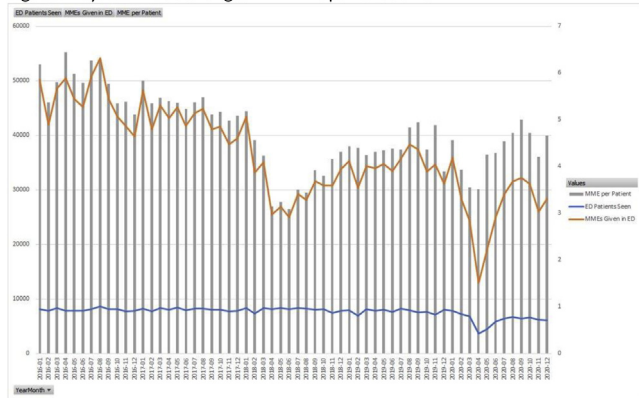




Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.

Figure 2. System-wide changes in MMEs per encounter



## 209 Seroprevalence of Anti-SARS CoV-2 Nucleocapsid IgG in a Cohort of Healthcare Workers Over Nine Months

The CONSERVE-HCW Research Group, Tiffany B, Bremner R, Cogo J, Zumbuhl J, Wood L, Arriola B, Wiley N, Sanders S/Dignity Health Research Institute Arizona; Dignity Health Arizona General Hospital, Mesa, AZ

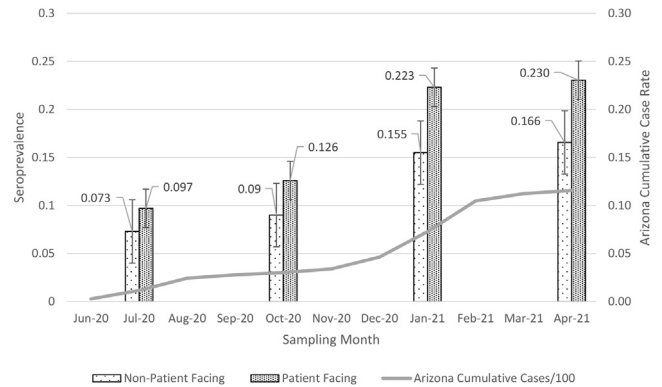
**Study Objectives:** Healthcare workers (HCWs) in acute-care hospitals are inherently more likely than the general population to be exposed to the SARS-Cov-2 virus. There is great diversity among HCWs in degree of exposure based on intensity and duration of patient contact. The use of personal protective equipment and other infection prevention measures would be expected to significantly modify the risk of acquiring COVID-19. We hypothesized that patient-facing HCWs (PF) are more likely to acquire COVID-19 illness over time than non-patient facing HCWs (non-PF).

**Methods:** All HCWs who were either employed or part of the medical staff at six acute-care hospitals in Phoenix, Arizona in June 2019 were invited to participate. A cohort of 1358 HCWs provided informed consent, filled out a questionnaire regarding their healthcare role, and had blood drawn between June 15<sup>th</sup> and August 15<sup>th</sup>, 2020 (Draw 1). The questionnaire and blood draws were repeated in October 2020 (Draw 2), January 2021 (Draw 3), and April 2021 (Draw 4). 881 physicians/APPs and nurses with direct patient care responsibilities, respiratory therapists, phlebotomists, and patient care technicians were categorized as PF, 477 other participants considered non-PF. SARS-CoV-2 anti-nucleocapsid IgG was measured using the Abbott Architect platform, using a cut-off of greater than 1.4 arbitrary units as a positive result. This assay does not detect anti-spike IgG and is therefore insensitive to Covid vaccination status. Because previous studies suggest that anti-nucleocapsid IgG levels decay over time, participants were treated as seropositive for all draws following their first positive draw regardless of the index result. Participants who missed a draw were treated as negative on that draw. Differences in seroprevalence were tested with a Z-score test for differences in proportion. Proportions were expressed as percentages +/- 95% confidence intervals.

**Results:** Overall seroprevalence increased from 8.8% +/- 1.5% on Draw 1 to 11.3% +/- 1.7% on Draw 2, 19.9% +/- 2.1% on Draw 3, and 20.8% +/- 2.2% on Draw 4. There were no significant between-group differences in seroprevalence on Draw 1 (PF 9.7% +/- 2.0% vs non-PF 7.3% +/- 2.3%,  $p=0.136$ ), but PF HCWs were significantly more likely to be seropositive on Draw 2 (12.6% +/- 2.2% vs. 9.0% +/- 2.6%,  $p=0.046$ ), Draw 3 (22.3% +/- 2.7% vs 15.5% +/- 3.2%,  $p=0.0027$ ), and Draw 4 (23.0% +/- 2.8% vs 16.6% +/- 3.3%,  $p=0.0049$ ). See Figure 1 with CDC cumulative COVID-19 case rate for Arizona presented for reference. Subgroup analysis within the PF group shows that physicians/APPs were less likely than other PF groups to be seropositive at all time points (Draw 1: 6.2% +/- 2.8% vs. 11.3% +/- 2.5%,  $p=.018$ ; Draw 2: 8.7% +/- 3.3% vs. 14.4% +/- 2.8%;  $p=.018$ ; Draw 3: 17.4% +/- 4.4% vs. 24.5% +/- 3.4%,  $p=.019$ ; Draw 4: 17.8% +/- 4.4% vs. 25.5% +/- 3.4%,  $p=0.0016$ )

**Conclusion:** PF HCWs were more likely than non-PF HCWs to seroconvert acquire COVID-19. Among PF HCWs, physicians and APPs were the least likely to seroconvert, and their seroconversion rate was similar to the non-PF HCWs.

Seroprevalence of Anti-SARS CoV-2 Nucleocapsid IgG in a Cohort of Healthcare Workers



## 210 Assessment of Emergency Department Health Care Providers' Readiness for Intimate Partner Violence Screening and Correlation With Cultural Competence

Lutz K, Purakal J, Williams J/The University of North Carolina at Chapel Hill School of Nursing, Chapel Hill, NC

**Study Objectives:** Intimate partner violence (IPV) is a serious public health issue and emergency departments (ED) are often a victim's only contact with healthcare providers (HCPs). The ED also increasingly serves as a primary source of care for racial/ethnic minorities and other historically marginalized groups because of rising healthcare costs and declining access to care. The need for culturally competent providers, resources, and messaging when addressing IPV cannot be overstated. To inform more inclusive IPV screening strategies, this study explored the intersectionality of IPV readiness and cultural competence among ED HCPs. Specifically, this study aimed to (1) explore overall readiness (ie, knowledge, attitude, barriers) for IPV screening among ED HCPs; (2) assess their average cultural competence; (3) and examine if cultural competence is associated with IPV screening readiness.

**Methods:** A cross-sectional, correlational study was conducted in three EDs of a large healthcare system in North Carolina. To be eligible, participants had to be a HCP with a primary position at one of the ED study sites. HCPs included registered nurses (RNs), faculty/staff physicians, physician assistants, nurse practitioners, resident physicians, and physician assistant residents. HCPs who were contracted/temporary employees at the time of survey distribution were excluded. Data were collected through an anonymous online self-report survey including two validated instruments: the Physician Readiness to Manage Intimate Partner Violence Survey and the Healthcare Provider Cultural Competence Instrument. Descriptive statistics and correlation analyses were conducted to answer study aims.

**Results:** Our study sample included 67 respondents of varying demographics (Table 1). More than one-third (38.8%) reported no prior IPV training. IPV readiness scores were lowest for perceived preparation and knowledge, and highest for victim understanding and legal requirements. Those with prior IPV training had significantly higher IPV readiness scores. When examining differences in knowledge by degree, MDs/DOs were found to have significantly higher average IPV knowledge scores than RNs (MDs: 30.33; vs. DOs:31.00; vs. RNs: 27.09; vs. PAs: 27.33; vs. NPs: 28.00;  $p=.05$ ); however, no significant differences were found between their perceived knowledge, perceived preparation, questioning practices, total IPV actions, or practice issues. Cultural competence scores were generally positive and similar across all domains. Aspects of IPV readiness were associated with culturally competent behaviors, communication, and practices (Table 2). Finally, cultural awareness and sensitivity was not related to IPV readiness.

**Conclusion:** Our study contributes to the limited research examining the relationship between IPV readiness and cultural competence among ED HCPs. Overall, participants were found to have low readiness scores regardless of provider type. Those with prior IPV training were found to have greater readiness in practice, suggesting that standardization of screening practices and IPV-related training should be the standard of care in all EDs, regardless of profession. Our data also suggests that culturally-competent behaviors and communication are learned skills that can increase