Exploring the Effect of COVID-19 on Nurse Staffing in Hospitals

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The COVID-19 pandemic disrupted historical trends in the nursing workforce. After many years of increasing in number, the supply of registered nurses (RNs) in the US workforce declined in 2021 and then increased again in 2022 and 2023.[1] As hospital leaders continue to grapple with shortages of registered nurses, calls for using alternative staffing models have emerged. This study used data from the American Hospital Association's (AHA) Annual Survey from 20017 to 2022 to investigate trends in the utilization of registered nurses (RNs), licensed practical nurses (LPNs), and nursing assistive personnel (NAP) in hospitals. Using descriptive and bivariate analyses, we examined trends in average full-time equivalents (FTEs) and hierarchical linear modeling to investigate the effect of time, hospital characteristics, and geographic characteristics on RN staffing intensity (i.e., RN FTE to 1,000 patient days) between 2017 and 2022. Relative to 2017, RN adjusted staffing intensity increased by 0.12 RNs per 1,000 patient days in 2020, ($p < .01$), but then decreased by 0.11 RNs in 2021 ($p < .01$), and further decreased by 0.27 RNs in 2022 ($p < .01$). RN staffing intensity varied significantly by state ($p < .05$) and LPN FTEs increased by 7% between 2021 and 2022. Average NAP FTEs per hospital grew by 12% from 2017 (94.8) to 2022 (106.2). These data are consistent with previous findings that although overall RN supply rebounded in 2022, much of this growth took place outside hospitals.[1] If RN FTEs continue to decline in hospitals, this may further accelerate the use of team-based nursing care models that seek to optimize the scarce resource of RN staffing.

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WORKS CITED

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