

UCSF

UC San Francisco Previously Published Works

Title

Changes in Registered Nurse Employment and Education Capacity during the COVID-19 Pandemic and the Risk of Future Shortages

Permalink

<https://escholarship.org/uc/item/870249qj>

Journal

Health services research, 56(Suppl 2)

ISSN

0017-9124

Author

Spetz, Joanne

Publication Date

2021-09-01

Peer reviewed

Changes in Registered Nurse Employment and Education Capacity during the COVID-19 Pandemic and the Risk of Future Shortages

Joanne Spetz

University of California, San Francisco, San Francisco, CA, USA

Research Objective: During the first months of the COVID-19 pandemic, numerous concerns about the nursing workforce were reported. Nursing education programs have reported that their students were not able to continue their clinical education due to worries about infection risks within hospitals and some have cancelled or reduced entering cohorts. At the same time, anecdotal reports suggested that some RNs near retirement chose to retire early to reduce the risk of infection with SARS-Cov2. These changes, if true, could undermine the progress made over the past 20 years toward a balanced nursing labor market and lead to shortages of RNs in the near future.

Study Design: This study uses data from two surveys conducted in California to assess the current and future supply of RNs, and to learn how the coronavirus pandemic is affecting this essential workforce. Early data from two surveys have been analyzed to provide a rapid assessment of the workforce: (1) the biennial Survey of California Registered Nurses, and (2) the Board of Registered Nursing Annual Schools Survey. Data from the Survey of California RNs, which is based on a stratified sample of the state's nurses, are weighted to represent the total population of nurses. Analysis methods include tabulating means and frequency distributions for the 2020 surveys and comparing the results to prior years. The data from these surveys are then used in a stock-and-flow supply projection model to learn the extent to which RN shortages might emerge in the future.

Population Studied: Registered nurses and nursing education programs in California.

Principal Findings: Approximately 2000 RNs responded to the biennial Survey by November 2020. The data indicate that: (1) employment rates of older nurses dropped substantially: 6 percentage points for RNs 60-64 years old and 10 percentage points for RNs 65 years and older. Employment rates for nurses younger than 30 years also dropped, but not significantly. Employment of nurses 30-49 years increased approximately 6 percentage points, making up for the decreases of older RNs. Among RNs 55-64 years old, the percent reporting they intend to retire or leave nursing within two years increased from 11.4% in 2018 to 24.5% in 2020.

The survey of RN education programs finds that 16 of California's 147 nursing programs skipped a cohort of students in 2020 and another 18 programs enrolled fewer students than the prior academic year. The estimated decrease in students statewide is approximately 350 - 2.3% of ~15,000 new enrollments in 2018-2019.

Conclusions: Although RN enrollments decreased only negligibly, the rapid decrease in employment of older nurses and increase in projected retirements suggest that RN shortages may rapidly emerge.

Implications for Policy or Practice: Over the past five years, hospitals have been increasingly uninterested in hiring newly-graduated nurses, even while reporting shortages of experienced RNs. Hospitals need to rapidly hire newly-graduated RNs in order to compensate for the rapid outflow of older RNs from the labor supply.

The Psychosocial Impact of COVID-19 on Registered Nurses

Amy Witkoski Stimpfel; Lauren Ghazal; Lloyd Goldsamt;

Jessie Zhanay; Victoria Vaughan Dickson

New York University, New York, NY, USA

Research Objective:: Central the COVID-19 pandemic response are registered nurses (nurses), making life and death decisions amidst personal protective equipment (PPE) shortages and scarcity in other resources (e.g., ventilators, medications, staff). Emerging international evidence suggests nurses are at higher risk for detrimental psychosocial outcomes related to the pandemic, such as anxiety, depression, and sleep problems, compared to other clinician groups. The objective of this research is to describe the psychosocial impact of the COVID-19 pandemic on nurses currently practicing in the U.S.

Study Design:: We conducted a concurrent mixed methods study from May-August 2020. Participants were recruited through email listservs from regional professional nursing organizations, NIOSH-funded Education and Research Centers nationwide, and through social media. Through REDCap, participants completed researcher-developed sociodemographic and work characteristic questions (e.g., unit type, staffing levels, availability of PPE), and several validated instruments to measure depressive symptoms (Patient Health Questionnaire; PHQ-9), anxiety (Generalized Anxiety Disorder; GAD-7), insomnia (Insomnia Severity Index; ISI), and resilience (Connor Davidson Resilience Scale; CD-RISC-10). A subset of participants was purposefully selected for semi-structured individual phone interviews to achieve maximum variation. Following data collection, we randomly drew 10 participants to receive a \$50 Amazon giftcard.

Population Studied:: We recruited a sample of nurses from 36 states and the District of Columbia. The analytic sample included N=629 for the survey and N=34 for the interviews. We report only survey findings herein.

Principal Findings:: Participants were on average 43 years old (SD 13), 92% female, and 80% White; 92% were non-Hispanic. Three-quarters (76%) worked in inpatient hospital settings; 20% worked in intensive care or step-down units. Approximately 70% of the sample worked day shifts and 59% worked 12-hour shifts. Out of a list of 13 common PPE items, 91% of the sample reported at least one PPE shortage since the pandemic began, and 24% reported bringing or making their own PPE for use at work. Over one in four (28%) nurses reported being unsure or planned to leave their employer in the next year. About 18% of the sample scored ≥ 15 on the ISI, suggesting insomnia