

Background

- Over 6 million patients require treatment in intensive care units for life-threatening conditions every year in the US.
- Since the start of the COVID-19 pandemic, critical care medicine providers have held an immense responsibility in providing care to critically ill patients.
- Staff from across the hospital have been re-deployed to work in critical care units.
- Health crises such as the COVID-19 pandemic, particularly during surging infection rates, have exponentially increased demand for acute, emergent, and intensive care.
- More research is needed in understanding the critical care medicine PA workforce demographic characteristics and practice patterns.

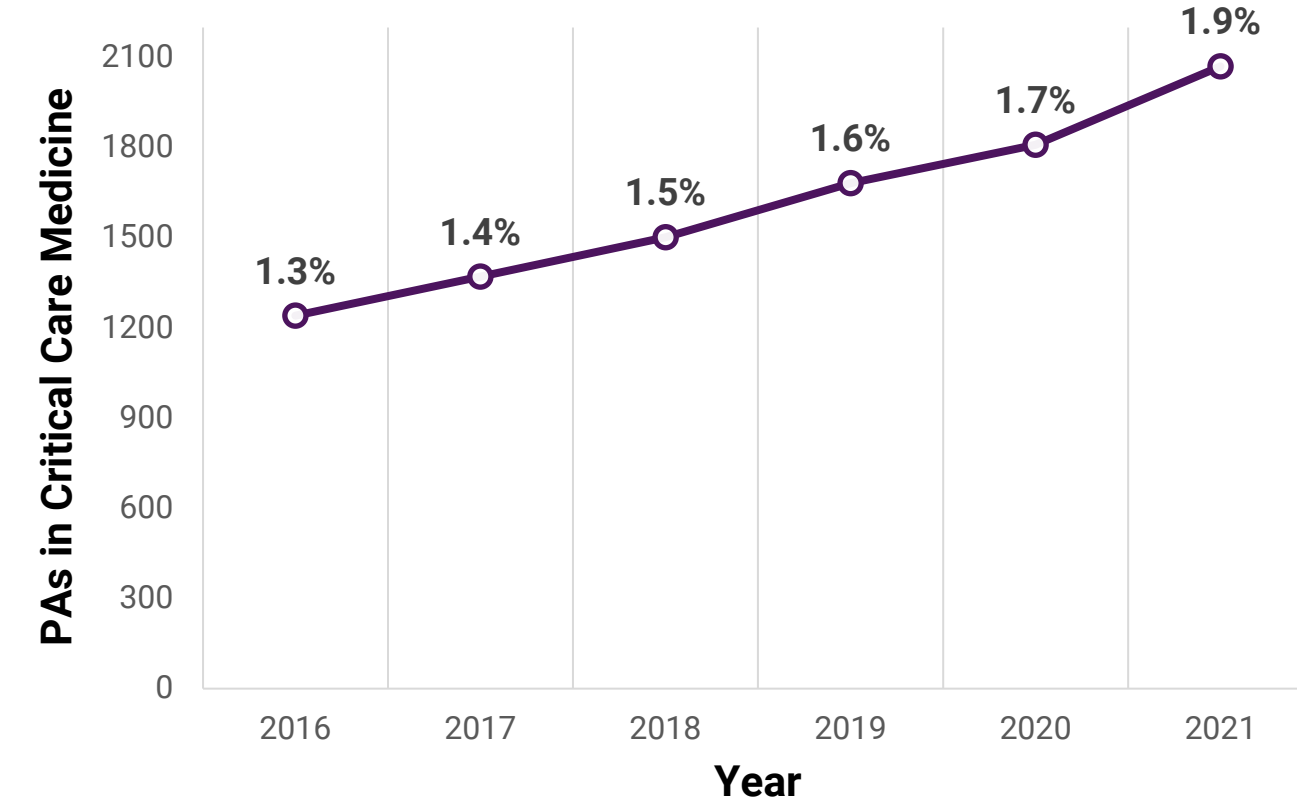
Objective & Method

- The study's objective was to:
 - describe** key demographic and practice characteristics of PAs working in critical care medicine and compare to PAs practicing in all other specialties
- Data were derived from National Commission on Certification of Physician Assistants (NCCPA) *PA Professional Profile*
- Analysis of the data consisted of descriptive statistics and bivariate analyses (Chi-square tests and Mann-Whitney U tests) conducted using SPSS

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Results

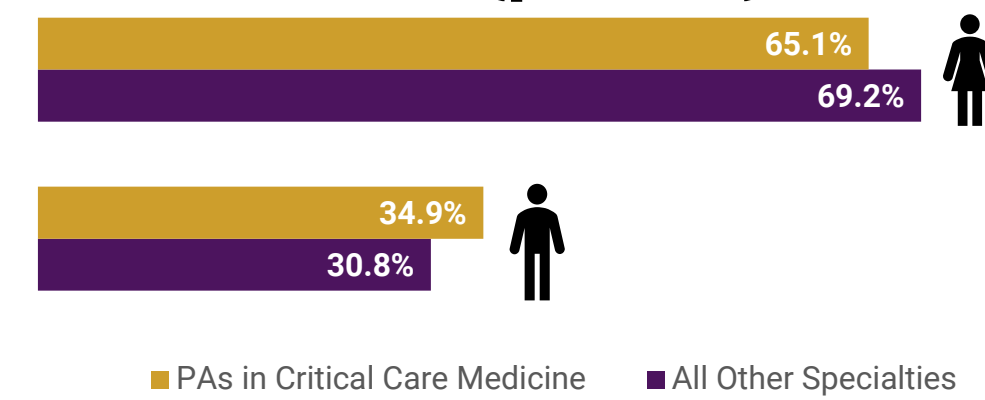
Growth of Certified PAs in Critical Care Medicine



The proportion of PAs working in critical care medicine has **increased** from 1.3% in 2016, to 1.9% by the end of 2021. The absolute number of PAs working in psychiatry has increased by 66.9% between 2016 and 2021.

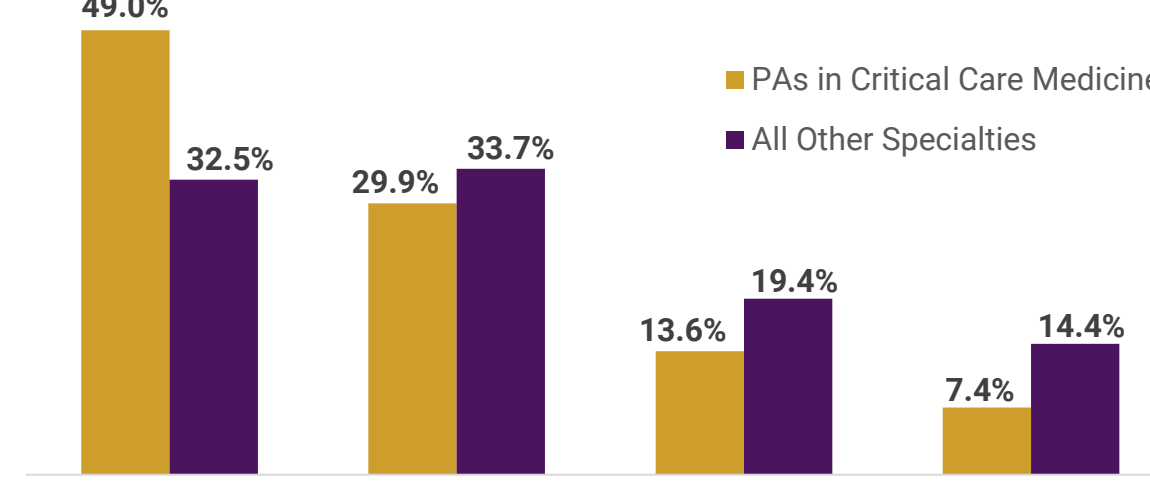
| Characteristics of PAs practicing in Critical Care Medicine vs. PAs practicing in all other specialties | | | |
|---|--|---|---------|
| | PAs practicing in Critical Care Medicine | PAs practicing in all other disciplines | P-value |
| Race: | | | |
| White | 84.4% | 84.8% | 0.116 |
| Asian | 7.1% | 6.0% | |
| African American | 3.5% | 3.5% | |
| Multiple Races | 2.1% | 2.0% | |
| Other | 2.8% | 3.6% | |
| Ethnicity: | | | |
| Non-Hispanic/Latino | 93.5% | 93.4% | 0.847 |
| Hispanic/Latino | 6.5% | 6.6% | |
| Hours worked per week: | | | |
| Median | 40.0 | 40.0 | <0.001 |
| Mean | 42.3 | 40.0 | |
| Patients seen per week: | | | |
| Median | 30.0 | 64.0 | <0.001 |
| Mean | 42.2 | 71.5 | |
| On-call hours per week: | | | |
| None (I do not take calls) | 84.8% | 64.1% | 0.000 |
| 5 or less hours/week | 4.9% | 18.0% | |
| 6-10 hours/week | 2.6% | 6.1% | |
| More than 10 hours/week | 7.8% | 11.7% | |
| Armed forces served: | | | |
| Yes | 6.9% | 9.3% | <0.001 |
| No | 93.1% | 90.7% | |
| Speak language other than English: | | | |
| Yes | 21.5% | 22.7% | 0.198 |
| No | 78.5% | 77.3% | |
| Intention to leave clinical position: | | | |
| Yes | 8.5% | 7.8% | 0.237 |
| No | 91.5% | 92.2% | |
| Job Satisfaction: | | | |
| Satisfied | 86.5% | 85.2% | 0.131 |
| Dissatisfied | 13.5% | 14.8% | |
| Burnout: | | | |
| No symptoms of burnout | 62.1% | 69.5% | <0.001 |
| At least one symptom of burnout | 37.9% | 30.5% | |

Gender (p<0.001)



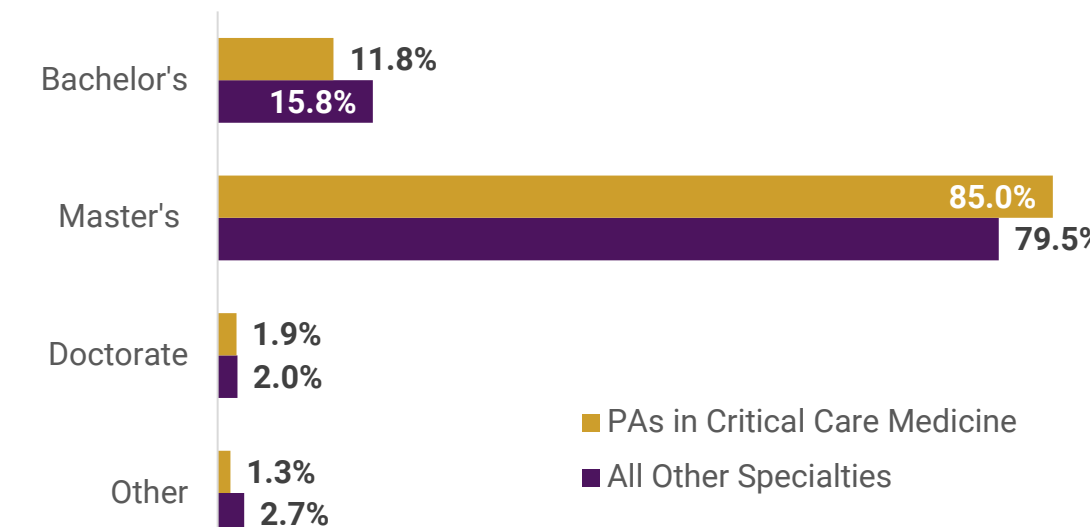
The PA critical care medicine workforce is composed of 65.1% females.

Age (p<0.001)



PAs in critical care medicine are younger than PAs practicing in all other disciplines (mean age 37 vs. 41; p<0.001).

Highest Degree Obtained (p<0.001)



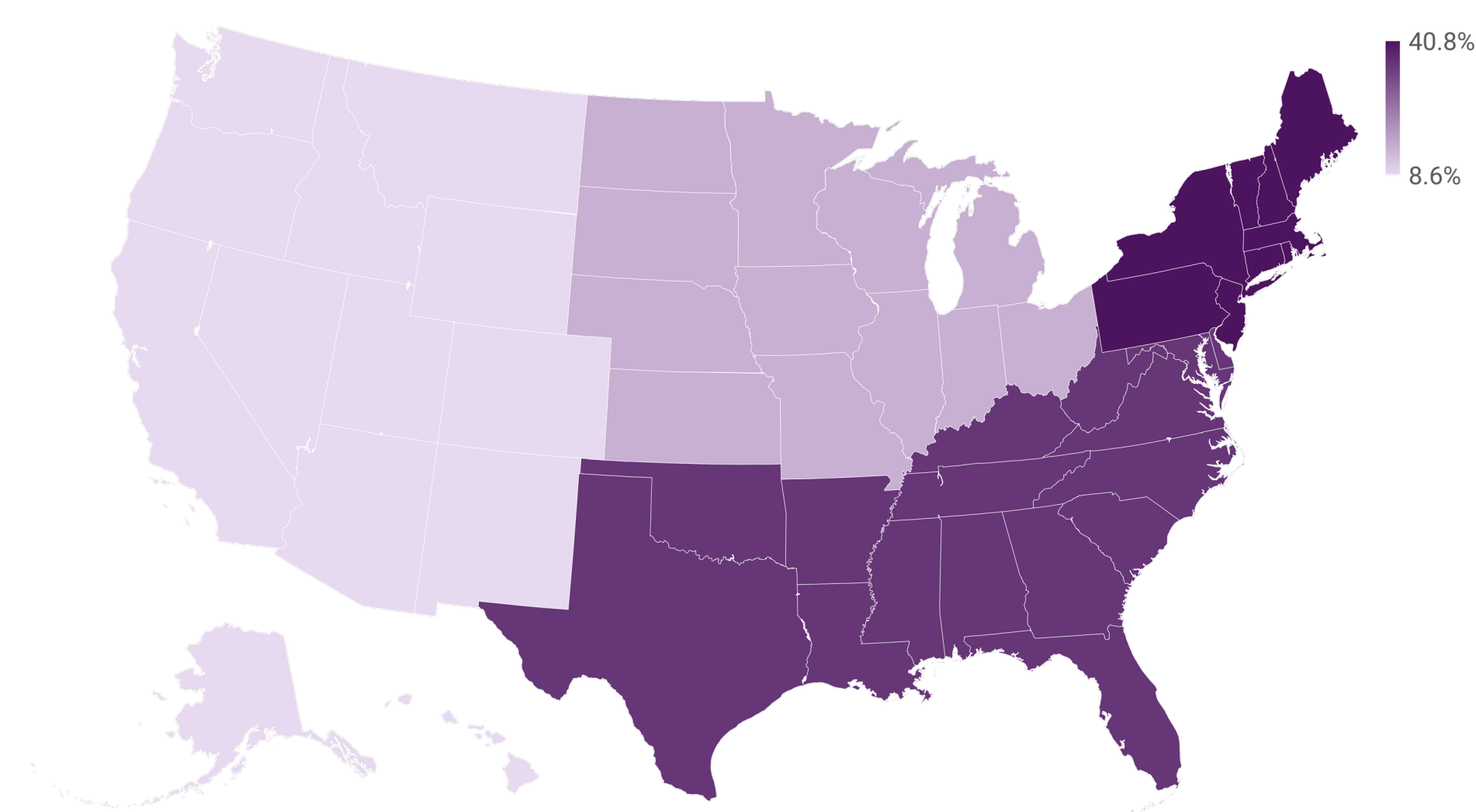
PAs in critical medicine are more likely to have a master's degree vs. PAs in all other specialties (85.0% vs. 79.5%; p<0.001).

Postgraduate Training (p<0.001)



14.9% of PAs in critical care medicine completed postgraduate training.

Geographic Distribution of Certified PAs in Critical Care Medicine



The percent PAs practicing in critical care medicine by region: Northeast (40.8%), South (35.3%), Midwest (15.3%), and West (8.6%).

| Services provided in principal clinical position of PAs practicing in Critical Care Medicine vs. PAs practicing in all other specialties | | | |
|--|---|--|---------|
| | PAs practicing in Critical Care Medicine who indicated service provided for "Most Patients" | PAs practicing in all other disciplines who indicated service provided for "Most Patients" | P-value |
| Diagnosis, treatment, and management of acute illness | 95.1% | 76.5% | <0.001 |
| Diagnosis, treatment, and management of chronic illness | 64.3% | 58.1% | <0.001 |
| Conduct physical examinations and obtain medical histories | 92.9% | 89.6% | <0.001 |
| Order, perform, and interpret lab tests, X-rays, EKGs, and other diagnostic studies | 97.7% | 80.6% | <0.001 |
| Provide preventive care, including screening and immunizations | 19.8% | 39.8% | <0.001 |
| Perform procedures | 54.7% | 33.8% | <0.001 |
| Counsel and educate patients and families | 73.8% | 81.8% | <0.001 |
| Provide care coordination | 65.1% | 51.6% | <0.001 |
| Make referrals | 40.5% | 41.8% | <0.001 |

Key Findings and Conclusion

- The number of PAs in critical care medicine has grown by 67% between 2016 and 2021
- PAs in critical care medicine were significantly more likely to work in multiple clinical positions compared to PAs in all other specialties (19.8% vs. 11.2%; p<0.001)
- PAs in critical care medicine vs. all other disciplines were more likely to report one or more symptoms of burnout (37.9% vs. 30.5%; p<0.001).**
- There was no significant difference detected in job satisfaction between critical care PAs and all other specialties. Most critical care PAs reported being mostly satisfied with their current position (86.5%).**
- PAs in critical care medicine provide indispensable services, including diagnosing, treating, and managing patients with acute conditions, conducting physical examinations, and obtaining medical histories, ordering, performing, and interpreting lab tests and diagnostic studies, performing procedures, and providing care conditions
- Critical care PAs were significantly less likely to be on-call compared to all other specialties (84.8% vs 64.1%; p=<0.001)**
- Due to the nature of the specialty, critical care PAs saw fewer patients per week than all other specialties.**

References

- Halpern NA, Goldman DA, Tan KS, et al. Trends in critical care beds and use among population groups and Medicare and Medicaid beneficiaries in the United States: 2000-2010. Crit Care Med. 2016;44:1490-1499.
- National Commission on Certification of Physician Assistants, Inc. (2021). 2020 Statistical Profile of Certified Physician Assistants: An Annual Report of the National Commission on Certification of Physician Assistants. Retrieved from <http://www.nccpa.net/resources/nccpa-research/>