

A national analysis of the older PA workforce: Demographics, clinical dynamics, and retention

Roderick S. Hooker, PhD, MBA, PA; James F. Cawley, MPH, PA-C, DHL(hon); Mirela Bruza-Augatis, PhD, MS, PA-C; Kasey Puckett, MPH; Andrzej Kozikowski, PhD

ABSTRACT

Objective: To compare the characteristics and dynamics of physician associates (PAs) aged 65 years and older with PAs younger than 65.

Methods: A descriptive, quantitative study compared demographic and practice attributes of PAs aged 65 and older with those younger than 65, utilizing a 2023 national dataset ($n = 149,909$).

Results: In 2023, 4.1% of board-certified PAs were 65 years and older. Among PAs 65 and older, 75.3% reported working clinically. Compared with PAs under age 65, a higher proportion of PAs 65 and older were male (50.2% vs 28.0%; $P < .001$), resided in rural/isolated areas (12.1% vs 6.9%; $P < .001$), and provided telemedicine services (44.5% vs 42.7%; $P = .014$). Older PAs were also less satisfied with their current job and reported lower burnout rates.

Conclusions: Amid persistent physician shortages, understanding the practice patterns of PAs 65 and older is crucial for developing targeted policies and practices that support their retention.

Keywords: aging, health care workforce, physician assistant/associate, retention, retirement, workforce shortage

Data from the 2022 US Census Bureau estimates that by 2050, the number of citizens 65 years of age or older will increase by 42% and will make up nearly one-quarter of the US population.¹ Population aging has implications for health care delivery, such as increased demand for geriatric care and more complex chronic disease management, requiring an adequately sized health care workforce that is prepared to meet the complex health care needs of older adults.²⁻⁴ Since the early 2000s,

however, the United States has faced a persistent physician workforce shortage, with projections estimating a shortfall of 37,800 to 124,000 physicians by 2034 across all medical specialties.⁵ Moreover, in 2023, about 23.4% of active US physicians were 65 years or older and potentially nearing retirement—a figure that has risen significantly in recent decades.⁵ The aging of the physician workforce and workforce shortages exacerbate the imbalance between physician availability/access and the rising health care demands of the US population. In contrast, the physician associate (PA) profession is predicted to increase by 20% from 2024 to 2034; this growth could help address the lack of health care access caused by the physician shortage.^{6,7} PAs also comprise a younger workforce than physicians, with a median age of 38 years in 2023.⁸

As the physician workforce ages, PAs are more important than ever. PA roles and employment settings in the United States are expanding, with PAs practicing in all medical and surgical areas and serving patients in rural and underserved areas where physician services are scarce.⁸⁻¹⁰ As the per capita supply of physicians continues to decline, particularly in primary care settings, and the demand for medical services increases, the need for more PAs and nurse practitioners (NPs) has never been greater.¹⁰⁻¹² In light of this, it is vital to examine the composition and activities of PAs that are near traditional retirement age. PAs aged 65 and older who work beyond the traditional retirement age will be an essential demographic group for health economists, policy analysts, and employers to consider in staffing arrangements.¹³ Prior research suggests that having health care providers continue to work beyond standard retirement age (even with reduced hours) may help alleviate physician shortages and reduced access.¹⁴

According to data collected by the American Academy of Physician Associates (AAPA) in 1998 on the attributes of older PAs, 1.6% of PAs were 60 years of age or older, 64.9% of whom indicated practicing clinically.¹⁵ A 2012 study using AAPA Census data collected from 48,692 participating PAs from 2005 to 2009 found that nearly 5% of the PA workforce was 60 years and older.¹⁶ Our research builds upon these two prior studies by providing a needed update using a robust national sample of all board-certified PAs. The purpose of our study was to

Roderick S. Hooker is a retired health policy consultant. James F. Cawley is a professor and scholar in residence at the PA Leadership and Learning Academy within the University of Maryland School of Graduate Studies in Baltimore, MD. Mirela Bruza-Augatis is a senior research scientist, Kasey Puckett is a senior research analyst, and Andrzej Kozikowski is a senior director of research with the National Commission on Certification of Physician Assistants (NCCPA) in Johns Creek, GA. The authors have disclosed no potential conflicts of interest, financial or otherwise.

DOI:10.1097/01.JAA.0000000000000386

Copyright © 2026 American Academy of Physician Associates

examine the number, demographics, and practice characteristics of PAs aged 65 and older compared with those younger than 65, in the post-COVID-19 pandemic period. We chose to study PAs aged 65 and older because Medicare eligibility begins at age 65, and this is the age traditionally associated with retirement.^{17,18} Examining PAs approaching retirement age contributes to a better understanding of their role in the health care workforce and their contribution to mitigating physician shortages. The findings from this study could inform policies and help develop health care workforce models that support the retention of clinically active PAs aged 65 and older.

METHODS

Using 2023 workforce data from the National Commission on Certification of Physician Assistants (NCCPA), we conducted a cross-sectional descriptive study comparing PAs aged 65 and older with those younger than 65. The NCCPA gathers and stores self-reported demographic, practice, and other critical workforce-related information in a secure, online module known as the PA Professional Profile.⁸ The PA Professional Profile was created in 2012 and based on the Health Resources and Services Administration's minimum dataset guidelines.¹⁹ The 2023 PA Professional Profile dataset included responses from 178,708 PAs who had maintained their NCCPA national board certification. Of these PAs, 149,909 had completed or updated a portion of the PA Professional Profile within the past 3 years (83.9% response rate).⁸ These data were used to compare PAs aged 65 and older with PAs younger than 65 based on demographics (gender, race, ethnicity, US region, urban-rural setting, completion of a postgraduate [PG] fellowship/residency), practice characteristics (clinically employed, practice setting, hours worked per week, patients seen per week, secondary position, and participation in telemedicine), and other important attributes (annual income, job satisfaction, burnout, and retirement plans).⁸ Job satisfaction was measured on a 7-point scale and dichotomized into *satisfied* ("completely satisfied," "mostly satisfied," and "somewhat satisfied") and *not satisfied* ("neither satisfied nor dissatisfied," "somewhat dissatisfied," "mostly dissatisfied," and "completely dissatisfied").⁸ Burnout levels were measured on a validated 5-point scale, and dichotomized into *no symptoms of burnout* ("I enjoy my work; I have no symptoms of burnout" and "Occasionally, I am under stress, and I don't always have as much energy as I once did, but I don't feel burned out") and *one or more symptoms of burnout* ("I am definitely burned out and have one or more symptoms of burnout, such as physical and emotional exhaustion"; "The symptoms of burnout that I'm experiencing won't go away. I think about frustration at work a lot"; and "I feel completely burned out and often wonder if I can go on. I am at the point where I may need some changes or may need to seek some sort of help").^{8,20,21}

We conducted descriptive and bivariate analyses to compare PAs 65 years and older with PAs younger than 65. Chi-square tests were conducted for categorical variables, which were summarized as frequencies and percentages. Normality of continuous variables (hours worked per week, patients seen per week, and income) was assessed using the Kolmogorov-Smirnov test and visual methods, which revealed that the continuous data were not normally distributed. Thus, nonparametric (Mann-Whitney U tests) analyses were conducted, and the medians (with interquartile ranges [IQR]) were reported for continuous variables. Statistical significance was set using a two-sided *P*-value of $\leq .05$. Cramer's V was calculated for chi-square analysis, and the rank-biserial correlation was used to estimate the effect size for Mann-Whitney U tests.^{22,23} Analyses were completed using IBM SPSS Version 29.0. This study was deemed exempt by the Sterling Institutional Review Board (IRB #10826).

RESULTS

By the end of 2023, 4.1% ($n = 6146$) of PAs were 65 years and older, and 95.9% ($n = 143,763$) were younger than 65. Among PAs aged 65 and older, 75.3% reported practicing clinically.

Demographic characteristics PAs aged 65 and older were almost evenly split by gender, with 50.2% self-identifying as male and 49.8% as female. In contrast, the gender distribution among PAs younger than 65 was 28.0% male and 72.0% female. Compared with the younger cohort, PAs aged 65 and older were slightly more likely to identify as White (87.8% vs 83.2%; $P < .001$), Black/African American (4.6% vs 3.5%; $P < .001$), and other races (4.0% vs 3.3%; $P < .001$). Additionally, PAs 65 years and older were more likely to reside in the western United States (26.0% vs 20.9%; $P < .001$) and rural/isolated areas (12.1% vs 6.9%; $P < .001$). When asked about PG education, 11.1% of PAs aged 65 and older reported completing a PG fellowship/residency, vs 5.5% of those younger than 65 ($P < .001$; Table 1). Although the demographic variables were statistically significantly associated, the effect sizes were small (Cramer's V, $< .1$ to $.1$, for all associations above).

Practice characteristics Several practice characteristics were statistically significantly different between the two cohorts. Compared with PAs younger than 65, a larger proportion of PAs 65 and older practiced in federal government offices (8.2% vs 4.4%; $P < .001$), urgent care (6.3% vs 5.8%; $P < .001$), community health centers (5.0% vs 2.7%; $P < .001$), rural health clinics (2.9% vs 1.3%; $P < .001$), and occupational health settings (2.5% vs 0.6%; $P < .001$). The effect size, however, was small, with a Cramer's V of $.10$.

PAs aged 65 and older and PAs younger than 65 reported working a comparable number of hours and seeing a comparable number of patients weekly. The median number of hours worked per week was similar for both groups (40

TABLE 1. Demographic characteristics of PAs by age group

Demographic variables	PAs aged 65 years and older (n = 6146)	PAs younger than 65 (n = 143,763)	P value	Effect size ^b
Gender, n (%)			<.001	0.10
Male	3083 (50.2%)	40,219 (28.0%)		
Female	3063 (49.8%)	103,454 (72.0%)		
Race, n (%)			<.001	0.04
White	5053 (87.8%)	114,442 (83.2%)		
Asian	136 (2.4%)	10,048 (7.3%)		
Black/African American	265 (4.6%)	4771 (3.5%)		
Multi-race	72 (1.3%)	3651 (2.7%)		
Other race ^a	229 (4.0%)	4593 (3.3%)		
Ethnicity, n (%)			<.001	0.02
Hispanic/Latino(a/x)	293 (5.1%)	10,132 (7.3%)		
Non-Hispanic/non-Latino(a/x)	5424 (94.9%)	128,242 (92.7%)		
US region, n (%)			<.001	0.03
Midwest	1005 (16.4%)	28,081 (19.6%)		
Northeast	1312 (21.5%)	34,951 (24.4%)		
South	2208 (36.1%)	50,180 (35.0%)		
West	1588 (26.0%)	29,989 (20.9%)		
Urban vs rural setting, n (%)			<.001	0.04
Urban	5365 (87.9%)	133,088 (93.1%)		
Rural/isolated	714 (12.1%)	9814 (6.9%)		
Completed a postgraduate fellowship/residency, n (%)			<.001	0.05
No	5384 (88.9%)	122,041 (94.5%)		
Yes	674 (11.1%)	7064 (5.5%)		

^a Includes those who selected Other, Native Hawaiian/Pacific Islander, and American Indian/Alaska Native

^b Effect size was reported as Cramer's V (categorical variables)

hours), although the IQR was wider for PAs aged 65 and older (IQR = 25-45 hours) than for PAs younger than 65 (IQR = 35-45 hours), with a small effect size (rank-biserial correlation = .05). The median number of patients seen weekly was also similar across groups (60 patients per week), although the IQR was wider for PAs aged 65 and older (IQR = 30-90 patients) than for PAs younger than 65 (IQR = 40-85 patients), with a very small effect size (rank-biserial correlation = .02). Moreover, 44.5% of PAs aged 65 and older, vs 42.7% of PAs younger than 65, reported providing telemedicine care ($P = .014$). Both cohorts had similar findings regarding secondary employment ($P = .706$; Table 2).

Income distribution Income was assessed based on PAs' self-reported total income from all PA positions in the last calendar year. Both the continuous income distributions and income ranges showed significant differences. For PAs 65 and older, the median reported income was \$115,000 (IQR, \$85,000-\$145,000) vs \$125,000 (IQR, \$105,000-\$145,000) for PAs younger than 65, with a rank-biserial

correlation of .03 indicating a small effect size ($P < .001$ for each). A complete breakdown of the income ranges is shown in Figure 1.

Work-life indicators Job satisfaction differed significantly between the two age groups, with PAs aged 65 and older reporting slightly lower satisfaction with their current clinical position than those younger than 65 (81.5% vs 83.1%; $P = .005$). Older PAs were also less likely to report burnout symptoms (22.8% vs 34.6%; $P < .001$). Most (68.0%) PAs 65 and older indicated their intent to retire in the next 5 years (vs 3.6% of PAs younger than 65; $P < .001$; Figure 2). Although statistically significant, the effect sizes for job satisfaction and burnout were very small, with Cramer's V of .01 and .05, respectively. The results for intent to retire had a large effect size, with a Cramer's V of .51.

DISCUSSION

This study aimed to provide updated information on the post-COVID-19 PA workforce, examining the character-

istics of PAs aged 65 and older and how they compare with their colleagues younger than 65. Our study found that among the 4.1% board-certified PAs 65 years and older, three-quarters (75.3%) continued to work clinically in 2023, and nearly a third did not plan to retire within the next 5 years. They were more likely to reside in rural/isolated regions of the United States and provide telemedicine care for their patients. They also reported lower rates of burnout and were slightly less satisfied with their current jobs.

Demographics The findings from our research revealed both similarities and differences relative to two studies

conducted over a decade ago.^{15,16} These studies examined PAs aged 60 years and older, approximately 1 decade apart, using the AAPA Census data source and found similar results.^{15,16} In those findings, PAs aged 60 years and older were more likely to identify as women, provide care in family medicine or primary care, and work in rural settings than the younger population of PAs.^{15,16} Our research found similar results regarding older PAs' likelihood to reside in rural settings; our sample of older PAs, however, was more likely to identify as male. Consistent with the 2012 Hooker study, our study found that PAs aged 65 and older worked fewer hours and saw fewer

TABLE 2. Practice characteristics of PAs by age group

Practice characteristic variables	PAs aged 65 years and older (n = 6146)	PAs younger than 65 (n = 143,763)	P value	Effect size ^b
Clinically employed, n (%)			<.001	0.17
No	1516 (24.7%)	6503 (5.0%)		
Yes	4618 (75.3%)	123,297 (95.0%)		
Practice settings, n (%)			<.001	0.10
Hospital	1267 (27.5%)	51,467 (42.2%)		
Office-based private practice	1644 (35.7%)	45,268 (37.1%)		
Urgent care	289 (6.3%)	7076 (5.8%)		
Federal government	380 (8.2%)	5375 (4.4%)		
Community health center	229 (5.0%)	3244 (2.7%)		
Rural health clinic	135 (2.9%)	1630 (1.3%)		
School-based or college-based health center	38 (0.8%)	861 (0.7%)		
Public or community health clinic	50 (1.1%)	834 (0.7%)		
Occupational health setting	114 (2.5%)	713 (0.6%)		
Extended care facility/nursing home	50 (1.1%)	722 (0.6%)		
Behavioral/mental health facility	66 (1.4%)	729 (0.6%)		
Free clinic	44 (1.0%)	134 (0.1%)		
Other ^a	302 (6.6%)	3917 (3.2%)		
Hours worked per week			<.001	0.05
Mean (SD)	35.7 (15.1)	39.9 (10.2)		
Median (IQR)	40 (25-45)	40 (36-45)		
Patients seen each week			<.001	0.02
Mean (SD)	63.0 (44.9)	66.4 (41.4)		
Median (IQR)	60 (30-90)	60 (40-85)		
Secondary position, n (%)			.706	-
Only one clinical position	3897 (84.7%)	102,528 (85.0%)		
Yes, in a position with no direct patient care	173 (3.8%)	4268 (3.5%)		
Yes, two or more clinical positions	530 (11.5%)	13,781 (11.4%)		
Participation in telemedicine, n (%)			.014	0.01
No	2553 (55.5%)	70,356 (57.3%)		
Yes	2047 (44.5%)	52,360 (42.7%)		

^a Includes ambulatory surgical center, rehabilitation facility, retail clinic, home health care agency, locum tenens, and hospice

^b Effect size was reported as rank-biserial correlation (continuous variables) or Cramer's V (categorical variables), as applicable

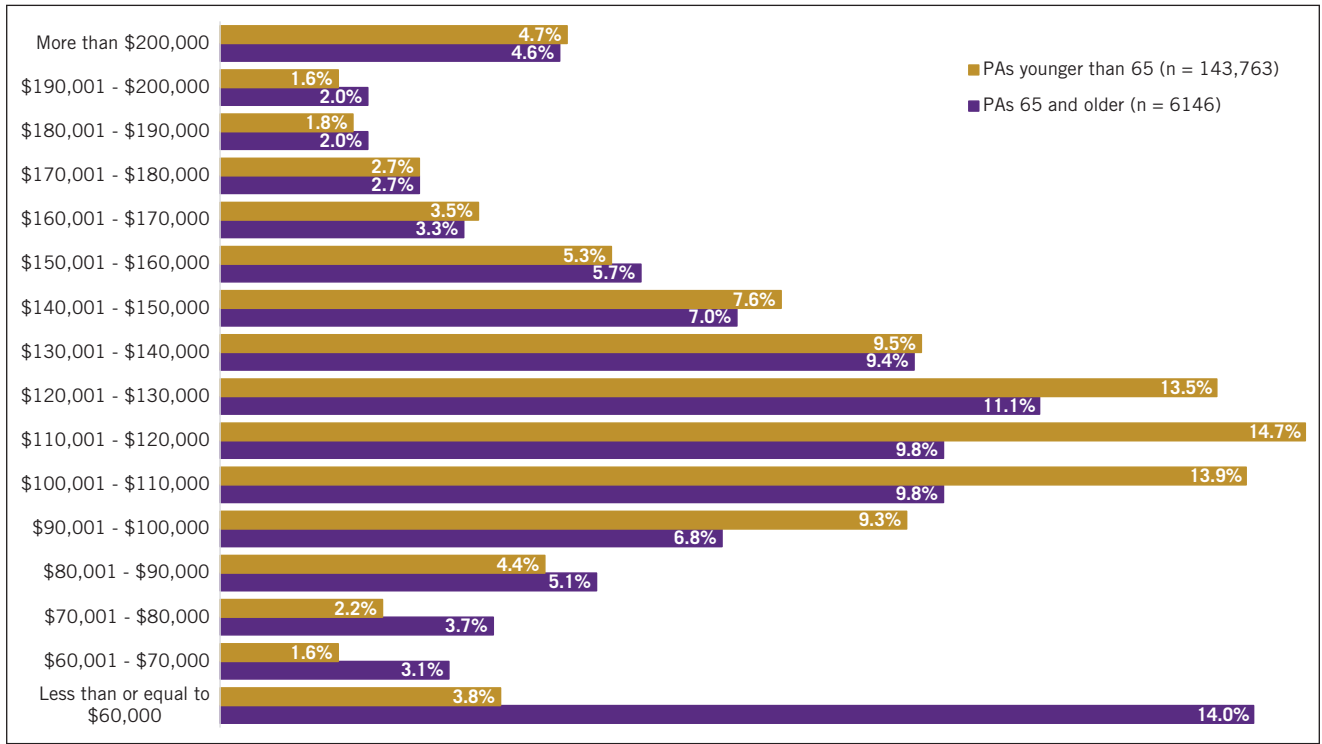


FIGURE 1. 2023 income ranges of PAs aged 65 years and older vs PAs younger than age 65

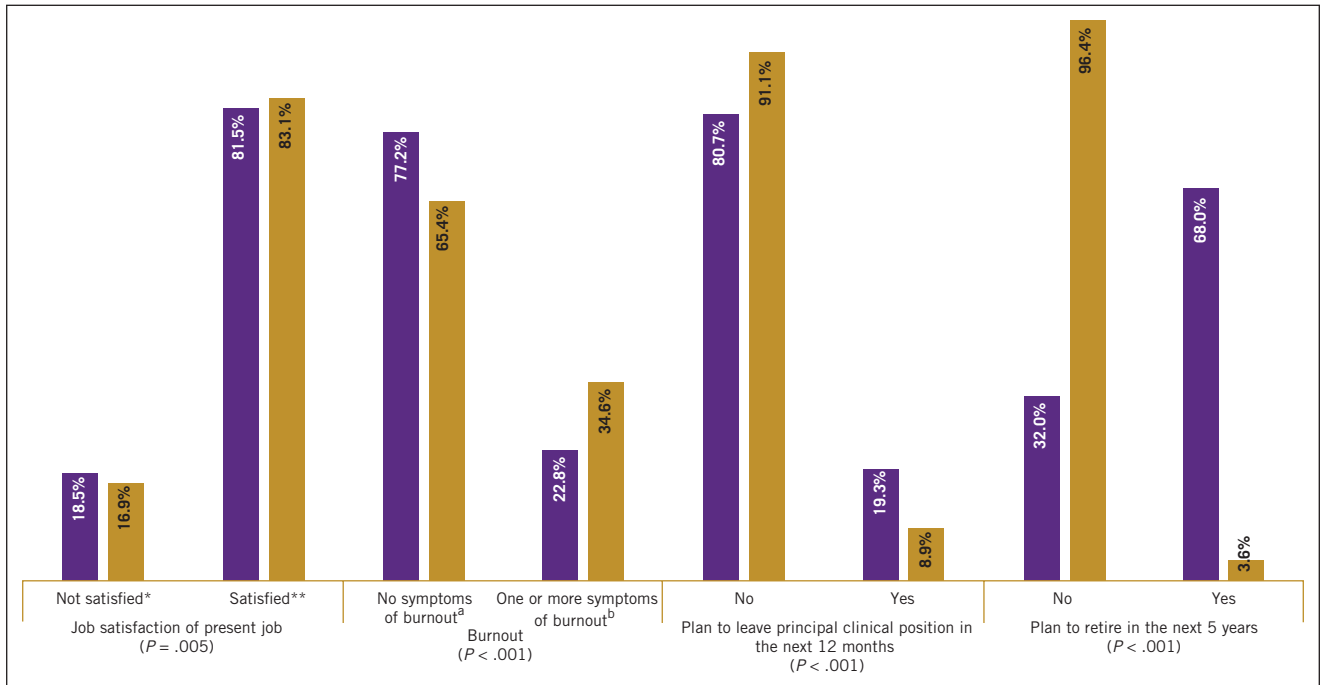


FIGURE 2. Job satisfaction, burnout, intention to leave, and retirement plans of PAs 65 years and older vs PAs younger than 65

*Not satisfied includes "neither satisfied nor dissatisfied," "somewhat dissatisfied," "mostly dissatisfied," and "completely dissatisfied."

**Satisfied includes "completely satisfied," "mostly satisfied," and "somewhat satisfied."

^aNo symptoms of burnout include "I enjoy my work; I have no symptoms of burnout"; "Occasionally, I am under stress"; and "I don't always have as much energy as I once did, but I don't feel burned out."

^bOne or more symptoms of burnout include "I am definitely burning out and have one or more symptoms of burnout, such as physical and emotional exhaustion"; "The symptoms of burnout that I'm experiencing won't go away. I think about frustration at work a lot"; and "I feel completely burned out and often wonder if I can go on. I am at the point where I may need some changes or may need to seek some sort of help."

patients weekly.¹⁶ Unlike these prior studies, our study examined PAs 65 years and older, rather than 60 years and older, to better align with the age traditionally associated with retirement.^{15,16} These studies, which informed our research design, did not explore burnout and job satisfaction.^{15,16}

Retirement Our study found that 19.3% of PAs aged 65 and older planned to leave their clinical positions within 1 year; nearly a third (32%), however, did not plan to retire within the next 5 years. A prior study examining retirement patterns of PAs utilizing the 2020 NCCPA dataset found that, among PAs who indicated they planned to retire in the next 5 years, a higher proportion were over the age of 70 (66.5%) and identified as male (8.8%).²⁴ Studies demonstrate that physicians typically retire between the ages of 60 and 69, with a median retirement age of 65.^{25,26} About 40% of physicians reduced their clinical work activities by 10% 2 years before retirement.²⁷ Although physician retirement age did not differ significantly across medical specialties, female physicians tended to retire earlier than male physicians.^{26,27} Moreover, physicians located in rural

Three-quarters of PAs aged 65 and older continued to work clinically in 2023, and nearly one-third did not plan to retire in the next 5 years.

areas tended to retire about 2 years earlier than those in urban areas.²⁷ Similarly, our study found that a higher proportion of PAs 65 and older worked fewer hours and saw fewer patients weekly, compared with PAs younger than 65. Older PAs, however, were more likely to participate in telemedicine care and were located in rural/isolated areas. These findings underscore the importance of strategies and policies designed to support the retention of older PAs in rural areas and expand telemedicine access amidst the current health care provider shortage. The 2019 PA Licensure Compact, for example, creates a pathway for “PAs with a license in a compact member state to more easily become authorized” to practice in another participating state, and has contributed to the expansion of access to care.²⁸ The licensure portability and flexibility that the Licensure Compact provides for multistate practice may be one reason why older PAs may be more inclined to participate in telemedicine care; however, further studies should be conducted to examine why older PAs are more likely to engage in telemedicine.

PAs aged 65 and older were slightly more likely to report dissatisfaction with their current jobs, and less likely to report burnout symptoms, than their younger PA counterparts. Prior research has indicated that higher levels of burnout among a sample of clinically practicing PAs predicted job dissatisfaction and plans to leave their clinical practice within 2 years.²⁹ Another study examining burnout among a national sample of PAs found that PAs 65 and older had nearly 8% lower probability of burnout compared with those younger than 35.³⁰ Similarly, a recent study has found that older physicians report less burnout; however, higher levels of work-related burnout were associated with early retirement plans.^{31,32} Lower levels of burnout among older physicians and PAs may reflect experience and coping strategies developed over years of clinical practice.^{30,33}

Job satisfaction A study of job satisfaction and career plans found that among a sample of PAs with a median age of 44, most (82.5%) reported being very satisfied/satisfied with their present job.²⁹ The majority (60.7%) did not plan to decrease their work hours in the next year, whereas nearly a third (32%) indicated a moderate to high likelihood of leaving their current job within 2 years.²⁹ A correlation between age and job satisfaction was identified among department chairs in health care professional schools, where older health care providers reported higher job satisfaction, in contrast to our study’s findings, where older PAs reported less satisfaction with their present job.³⁴ Work-life indicators such as burnout and job satisfaction are essential for predicting retirement intention among health care providers. Our findings are exploratory, and further research is needed to examine the effects of job satisfaction and burnout on older PAs.

Limitations Most of the data in our study were self-reported and potentially influenced by recall and acquiescence biases; our findings should therefore be interpreted cautiously.³⁵ Due to the study’s cross-sectional design, we cannot establish causality, as the data were collected at a single point in time, and we did not track how variables trended longitudinally. Our study examined two age groups (PAs aged 65 and older and those younger than 65); future research should explore the characteristics of PAs’ differences across early-, mid-, and late-career stages. Additionally, further research is warranted to better understand the factors contributing to rural dwelling among PAs 65 and older, and how this may mitigate physician shortages and expand access to health care services.

CONCLUSION

Among the 4.1% of board-certified PAs aged 65 and older, three-quarters (75.3%) continued to work clinically in 2023, and nearly a third (32.0%) did not plan to retire in the next 5 years. This group of PAs, who were closer to average retirement age, were more likely to provide

telemedicine services and reside in rural/isolated regions of the United States, potentially increasing access to health care in those areas. Further research is needed to better understand the factors contributing to rural dwelling among PAs aged 65 and older. In the context of the ongoing physician shortage, understanding the practice patterns of PAs aged 65 and older is crucial for developing targeted policies and practices aimed at supporting their continued workforce participation. **JAAPA**

REFERENCES

1. US Census Bureau. 2023 National Population Projections Tables: Main Series. February 12, 2025. Accessed December 23, 2025. <https://www.census.gov/data/tables/2023/demo/popproj/2023-summary-tables.html>
2. Jones CH, Dolsten M. Healthcare on the brink: navigating the challenges of an aging society in the United States. *NPJ Aging*. 2024;10(22). doi:10.1038/s41514-024-00148-2
3. Zayas CE, He Z, Yuan J, et al. Examining healthcare utilization patterns of elderly middle-aged adults in the United States. *Proc Int Fla AI Res Soc Conf*. Published online May 2016:361-366.
4. AHRQ. AHRQ strategic plan for health system transformation to optimize health, functional status, and well-being among older adults. July 2024. Accessed December 22, 2025. <https://www.ahrq.gov/sites/default/files/wysiwyg/priority-populations/aging-well-strategic-plan.pdf>
5. AAMC. *The Complexities of Physician Supply and Demand: Projections Prepared for the AAMC by GlobalData Plc.*; 2024. Accessed December 22, 2025. <https://www.aamc.org/media/75231/download>
6. US Bureau of Labor Statistics. *Physician Assistants: Occupational Outlook Handbook*. U.S. Bureau of Labor Statistics. August 28, 2025. Accessed December 22, 2025. <https://www.bls.gov/ooh/healthcare/physician-assistants.htm>
7. Morgan P. Predicted shortages of physicians might even disappear if we fully account for PAs and NPs. *J Am Acad Physician Assist*. 2019;32(10):51-53. doi:10.1097/01.JAA.0000580580.89002.f4
8. National Commission on Certification of Physician Assistants. *2023 Statistical Profile of Board Certified Physician Assistants*; 2024. doi:10.64936/JG1050
9. Bruza-Augatis M, Coplan B, Puckett K, Kozikowski A. Providing care in underresourced areas: contribution of the physician assistant/associate workforce. *BMC Health Serv Res*. 2024;24(1):844. doi:10.1186/s12913-024-11190-X
10. Walensky RP, McCann NC. Challenges to the future of a robust physician workforce in the United States. *N Engl J Med*. 2025;392(3):286-295. doi:10.1056/NEJMSR2412784
11. HRSA. *State of the Primary Care Workforce, 2024*; 2024. Accessed December 22, 2025. <https://bhw.hrsa.gov/sites/default/files/bureau-health-workforce/state-of-the-primary-care-workforce-report-2024.pdf>
12. Hu X, Coplan B, Barnes H, Smith N, Essary A, Dill M. Physicians working with physician assistants and nurse practitioners: perceived effects on clinical practice. *Health Affairs Sch*. 2024;2(6). doi:10.1093/haschl/qxae070
13. Hooker RS, Cawley JF, Everett CM. Predictive modeling the physician assistant supply: 2010–2025. *Public Health Rep*. 2011;126(5):708-716. doi:10.1177/003335491112600513
14. Sataloff RT, Hawkshaw M, Kutinsky J, Maiz EA. The aging physician and surgeon. *Ear Nose Throat J*. Published online 2020. doi:10.1177/0145561320944297
15. Duryea WR, Hooker RS. “Elder” physician assistants and their practices. *JAAPA*. 2000;13(4):67.
16. Hooker RS, Ramos C, Daly P, Fang R. The characteristics of clinically active older physician assistants. *JAAPA*. 2012;25(1):48-53. doi:10.1097/01720610-201201000-00010
17. Social Security. Normal retirement age (NRA). 2025. Accessed December 22, 2025. <https://www.ssa.gov/oact/progdata/nra.html>
18. Ovaska-Few S. How 65 became the default retirement age. *Journal of Accountancy*. March 1, 2018. Accessed December 22, 2025. <https://www.journalofaccountancy.com/issues/2018/mar/how-65-became-default-retirement-age/>
19. Glick AD. Physician assistant profile tool provides comprehensive new source of PA workforce data. *JAAPA*. 2014;27(2):47-49. doi:10.1097/01.JAA.0000442708.26094.02
20. Rohland BM, Kruse GR, Rohrer JE. Validation of a single-item measure of burnout against the Maslach Burnout Inventory among physicians. *Stress Health*. 2004;20(2):75-79. doi:10.1002/smi.1002
21. Dolan ED, Mohr D, Lempa M, et al. Using a single item to measure burnout in primary care staff: a psychometric evaluation. *J Gen Intern Med*. 2015;30(5):582-587. doi:10.1007/s11606-014-3112-6
22. Cohen J. *Statistical Power Analysis for the Behavioral Sciences*. 2nd ed. Lawrence Erlbaum Associates; 2013.
23. Peres FF. Effect sizes for nonparametric tests: lessons in biostatistics. *Biochem Med (Zagreb)*. 2025;1(36). doi:10.11613/BM.2026.010101
24. Hooker RS, Kozikowski A, Cawley JF, Puckett K. Physician assistant/associate retirement intent: seeking the exit ramp. *BMC Health Serv Res*. 2022;22(1). doi:10.1186/s12913-022-08479-0
25. Silver MP, Hamilton AD, Biswas A, Warrick NI. A systematic review of physician retirement planning. *Hum Resour Health*. 2016;14(1). doi:10.1186/s12960-016-0166-z
26. Petterson SM, Rayburn WF, Liaw WR. When do primary care physicians retire? Implications for workforce projections. *Ann Fam Med*. 2016;14(4):344-349. doi:10.1370/AFM.1936
27. Hedden L, Laverne MR, McGrail KM, et al. Patterns of physician retirement and pre-retirement activity: a population-based cohort study. *CMAJ*. 2017;189(49):E1517-E1523. doi:10.1503/CMAJ.170231
28. PA Licensure Compact. 2025. Accessed December 30, 2025. <https://www.pacompact.org/>
29. Halasy MP, West CP, Shanafelt T, O’Laughlin DJ, Satele D, Dyrbye LN. PA job satisfaction and career plans. *JAAPA*. 2021;34(6):1-12. doi:10.1097/01.JAA.0000750968.07814.D0
30. Kozikowski A, Bruza-Augatis M, Maddux S, Puckett K, Morton-Rias D, Goodman J. Understanding burnout in physician assistants/associates through the lens of Conservation of Resources theory. *Health Aff Scholar*. 2025;3(9). doi:10.1093/haschl/qxaf176
31. Wijeratne C, Johnco C, Draper B, Earl JK. Older physicians’ reporting of psychological distress, alcohol use, burnout and workplace stressors. *Am J Geriatr Psychiatry*. 2021;29(5):478-487. doi:10.1016/j.jagp.2020.09.010
32. Jung FU, Bodendieck E, Pabst A, Lupp M, Riedel-Heller SG. Exploring the link between physician burnout and intentions to retire early. *BMC Public Health*. 2025;25(1). doi:10.1186/s12889-025-24841-3
33. Peisah C, Latif E, Wilhelm K, Williams B. Secrets to psychological success: why older doctors might have lower psychological distress and burnout than younger doctors. *Aging Ment Health*. 2009;13(2):300-307. doi:10.1080/13607860802459831
34. Antoine L, DeOliveira S, Ahearn S. The influence of age and gender on work-life balance and job satisfaction among Department Chairs at Academic Health Centers. *Open J Leadersh*. 2024;13(3):279-289. doi:10.4236/OJL.2024.133017
35. Sanderson S, Tatt ID, Higgins JPT. Tools for assessing quality and susceptibility to bias in observational studies in epidemiology: a systematic review and annotated bibliography. *Int J Epidemiol*. 2007;36(3):666-676. doi:10.1093/IJE/DYM018