AAMC National Sample Survey of Physicians (NSSP)

Workforce Studies

Association of American Medical Colleges

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AAMC NATIONAL SAMPLE SURVEY OF PHYSICIANS (NSSP): AN OVERVIEW

- Developed and managed by the Workforce Studies team at AAMC and carried out by Toluna.

- The first wave of NSSP was fielded in 2019, collecting data from 6,000 active physicians across the U.S.

- The second wave was fielded in 2022, collecting data from 5,917 active physicians, including 2,429 participants who also participated in the first wave.

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AAMC NSSP: SAMPLING AND WEIGHTING

All eligible respondents from Wave 1 (4,418 out of 6,000) were invited.

New invitees were selected via a stratified random sample with proportionate allocation based on sex, specialty and age group, and rural status.

Weights were created to:

- Adjust for differential non-response modeled using the NSSP Wave 2 invitees;
- Calibrate back to the known AMA population based on sex, age group, specialty group, and IMG status.

Guidance provided by The University of Michigan Population Dynamics and Health Program https://www.aamc.org/media/71861/download?attachment

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Response Rates

- Wave 1: The traditional response rate does not apply, as data collection stopped once we had 6,000 respondents

- Wave 2 Follow-up (repeating respondents): 2,429 Respondents/4,418 Invitees = 55.0%

- Wave 2 Supplement (new invitees): 3,488 Respondents/16,900 Invitees = 20.6%

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Variables and Contents

- NSSP 2019 contains over 80 questions and more than 450 variables;

- Most of these questions were repeated in the 2022 survey;

- New questions were introduced in 2022;

- A collaborative effort across multiple AAMC clusters.

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NSSP Topics

Demographics and family	Training and practice	Telehealth
Retirement and attrition	Debt	Well-being
COVID's impact (2022 only)	CME (2019 only) and Academic affiliation	Working with PAs, NPs, and MBH (2022 only)

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NSSP CONTENT

Demographics

- Age
- Gender identity
- Sexual orientation
- Race/ethnicity
- Veteran status
- Languages spoken
- Disability
- International Medical Graduate

Training

- Medical school
- UME/GME rurality
- Time of completion
- Considerations in choosing specialty (2022 only)
- Parental leave availability during training (2022 only)

Family

- Relationship status
- Spouse/partner education
- Children – number, living arrangement, ages
- Care responsibilities during COVID (2022 only)
- Parents' degree (2022 only)

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Practice

- Specialty
- Setting
- Work hours
- Weeks of work
- Time on call
- Time allocation (patient care, teaching, research, admin)
- Academic affiliation
- Income (2022 only)

Debt

- Loan status
- Amount borrowed/left
- Length of repayment

Well-being

- Burnout
- Satisfaction
- Workplace harassment /discrimination

Telehealth

- Frequency
- Modality
- Attitude

Working with other providers

- Working with PA and experience
- Working NP and experience
- Working with mental behavioral health providers

Retirement and Attrition

- Expected age of retirement
- Post-retirement plan
- Intention to leave medicine
- History of temporarily leaving medicine or reduction of hours

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NSSP Contributions

- Provides more detailed information

- COVID-related measures

- Allows cross-sectional comparison

- Allows longitudinal comparison

Published Peer-Reviewed Research Using NSSP data (as of August 2025)

- A Sarode, X Hu, M Dill. **COVID-19 and Physician Burnout in the United States: Cross-Sectional and Longitudinal Evidence From a National Survey.** Health services research, e70003. 2025.

- M Tabata-Kelly, X Hu, M Dill, P Alberti, K Bullock, W Crown, M Fair, et al. **Physician engagement in addressing health-related social needs and burnout.** JAMA network open 7 (12), e2452152-e2452152. 2025.

- X Hu, B Coplan, H Barnes, N Smith, A Essary, M Dill. **Physicians working with physician assistants and nurse practitioners: perceived effects on clinical practice**, *Health Affairs Scholar*, Volume 2, Issue 6, June 2024

- D Winberg, M Baker, X Hu, K Horvath, **Who Participates in Value-Based Care Models? Physician Characteristics and Implications for Value-based Care**, Health Affairs Scholar, 2024.

- A Browne. **Prevalence and Characteristics of Physicians Engaged in Research in the US.** JAMA NetwOpen. 2024;7(9):e2433140. doi:10.1001/jamanetworkopen.2024.33140

- L Meeks, S Conrad, Z Nouri, et al. **Burnout Among Physicians With Disabilities**. JAMA Network Open. 2024; 7(5):e2410701. doi:10.1001/jamanetworkopen.2024.10701

- X Hu, S Conrad, M Dill. **Specialty gender composition and prevalence of physician harassment**. Journal of Women's Health 32 (4), 409-415. 2023

- A Jayas, D Andriole, D Grbic, X Hu, M Dill. **Physicians' continuing medical education activities and satisfaction with their ability to stay current in medical information and practice: A cross-sectional study.** Health Science Reports 6 (2) 2023

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Published Peer-Reviewed Research Using NSSP data (cont.)

- P Ortega, N Felida, S Avila, S Conrad, M Dill. **Language profile of the US physician workforce: A descriptive study from a national physician survey**. Journal of General Internal Medicine,Mar;38(4):1098-101. 2023

- Zhuang, C., Hu, X. & Dill, M.J. **Do physicians with academic affiliation have lower burnout and higher career-related satisfaction?** BMC Med Educ 22, 316 (2022).

- LM Meeks, SS Conrad, Z Nouri, CJ Moreland, X Hu, MJ Dill. **Patient And Coworker Mistreatment Of Physicians With Disabilities: Study examines mistreatment of physicians with disabilities**. Health Affairs 41 (10), 1396-1402. 2022

- X Hu, M Dill. **When physicians marry physicians: gender inequities in work hours and income.** Women's Health Reports 2 (1), 422-429. 2021

- Nouri Z, Dill MJ, Conrad SS, Moreland CJ, Meeks LM. **Estimated Prevalence of US Physicians With Disabilities**. JAMA Netw Open. 2021;4(3):e211254.

- X Hu, S Conrad, M Dill. **What Moves Physicians to Work in Rural Areas? An In-Depth Examination of Physician Practice Location Decisions**. Economic Development Quarterly 36(3). 2021

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Questions about NSSP?
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