



Addressing the Health Care Workforce Crisis

Princeton Conference

October 19, 2022

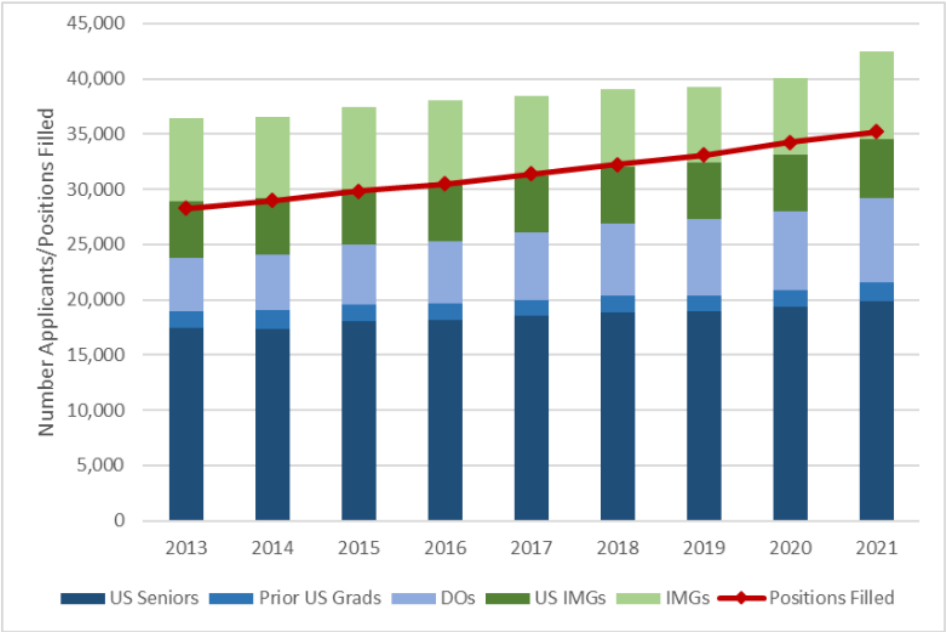
Growing number of medical students

Number of LCME-accredited (MD-granting) medical schools and enrolled students over time

	2006-2007	2009-2010	2014-2015	2021-2022
Number of Accredited Schools with Students Enrolled	125	130	141	155
Number of Enrolled Medical Students	69,028	73,082	80,755	90,409

Applicants to medical school increased by 17.8% for the 2021-22 school year, with medical schools accepting the largest and most diverse class

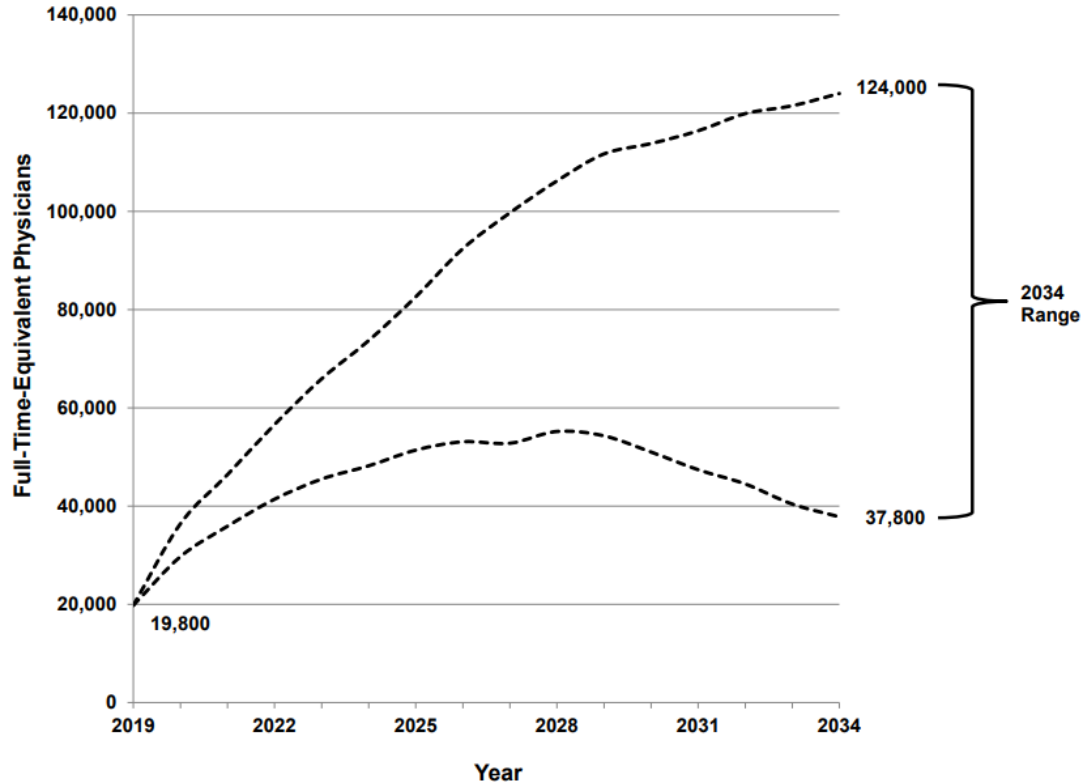
National resident matching program applicants and first-year positions, 2013–21



Funding for 1,000 new Medicare-supported GME slots was included in the Consolidated Appropriations Act of 2021

Source: "Graduate Medical Education Positions And Physician Supply Continue To Increase: Implications Of The 2021 Residency Match", Health Affairs Blog, May 21, 2021.

Projected physician shortages

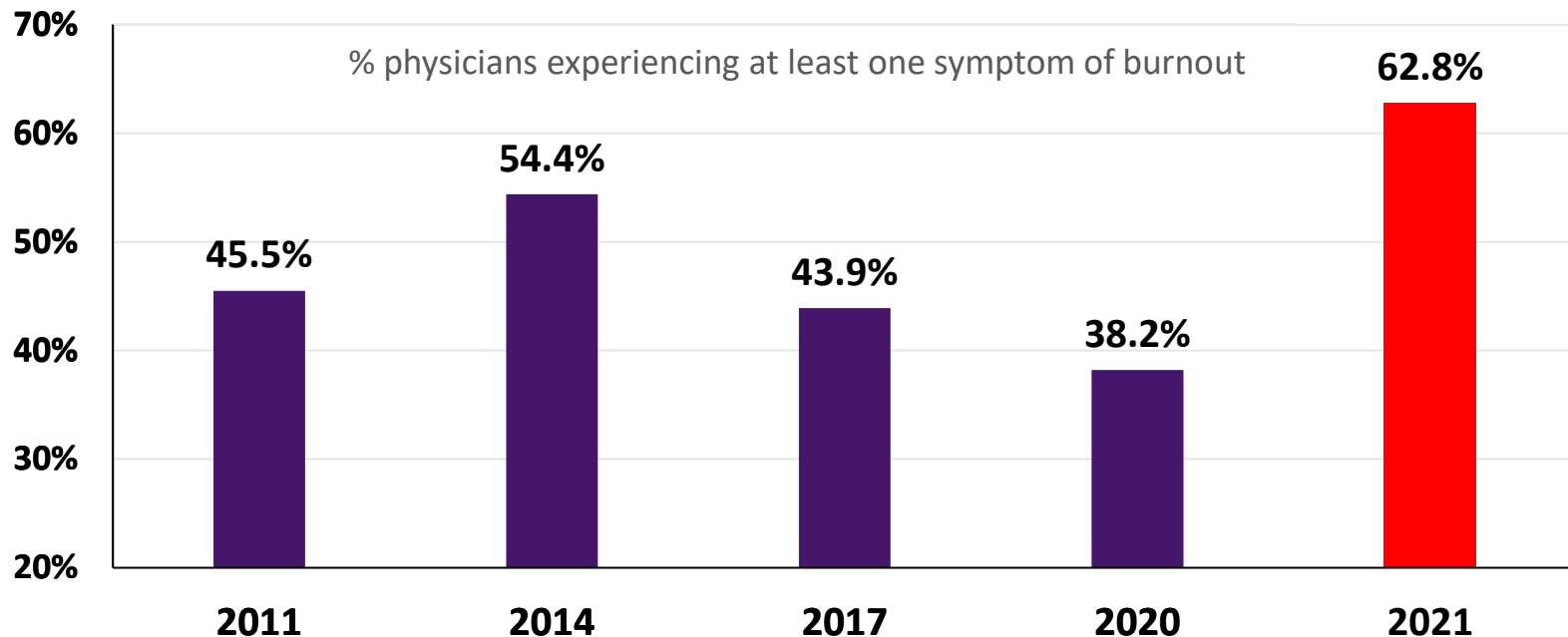


The shortage is driven by:

- Population growth
- Aging of the population
- Physician retirement
- Physicians leaving clinical care

Source: IHS Markit Ltd. *The Complexities of Physician Supply and Demand: Projections From 2019 to 2034*. Washington, DC: AAMC; 2021.

Physicians (and all health care workers) in crisis



Source: *Changes in Burnout and Satisfaction With Work-Life Integration in Physicians Over the First 2 Years of the COVID-19 Pandemic*. Shanafelt, Tait D. et al., Mayo Clinic Proceedings, In press.

EHR burnout drivers



Time

- 50% of the day is spent doing EHR/deskwork
- 25% spent F2F with patients
- 25% after-hours EHR work

Sinsky C, Colligan L, Li L, Prgomet M, Reynolds S, Goeders L, Westbrook J, Tutty M, Blike G. Allocation of Physician Time in Ambulatory Practice: A Time and Motion Study in 4 Specialties. *Ann Intern Med.* 2016 Dec 6;165(11):753-760. doi: 10.7326/M16-0961. Epub 2016 Sep 6. PMID: 27595430.



Accessibility

- Clinicians spent more total and after-hours time in the EHR compared with the pre-pandemic period
- 157% increase in patient message volume post-pandemic

A Jay Holmgren, N Lance Downing, Mitchell Tang, Christopher Sharp, Christopher Longhurst, Robert S Huckman, Assessing the impact of the COVID-19 pandemic on clinician ambulatory electronic health record use, *Journal of the American Medical Informatics Association*, Volume 29, Issue 3, March 2022, Pages 453-460, <https://doi.org/10.1093/jamia/ocab268>

Mistreatment and discrimination of physicians

- In this study, mistreatment and discrimination by patients, families, and visitors were common, especially for female and racial and ethnic minority physicians, and associated with burnout.

The screenshot shows the top portion of a research article. At the top left is the JAMA Network Open logo. To the right is a red padlock icon. Below the logo is the text 'Original Investigation | Occupational Health'. The main title is 'Physicians' Experiences With Mistreatment and Discrimination by Patients, Families, and Visitors and Association With Burnout'. Below the title are the authors' names: 'Liselotte N. Dyrbye, MD, MPH; Colin P. West, MD, PhD; Christine A. Sinsky, MD; Mickey Trockel, MD, PhD; Michael Tutty, PhD; Daniel Satele, BA; Lindsey Carlisare, MBA; Tah Shanafelt, MD'. The article is divided into sections: 'Abstract', 'Key Points', and 'Supplemental content'. The 'Abstract' section includes 'IMPORTANCE', 'OBJECTIVE', 'DESIGN, SETTING, AND PARTICIPANTS', 'EXPOSURES', 'MAIN OUTCOMES AND MEASURES', and 'RESULTS'. The 'Key Points' section includes 'Question', 'Findings', and 'Meaning'. The 'Supplemental content' section is indicated by a red plus sign and the text '+ Supplemental content'. At the bottom right of the article preview, it says 'Author affiliations and article information are listed at the end of this article.'

Source: Dyrbye LN, West CP, Sinsky CA, et al. Physicians' Experiences With Mistreatment and Discrimination by Patients, Families, and Visitors and Association With Burnout. JAMA Netw Open. 2022;5(5):e2213080. doi:10.1001/jamanetworkopen.2022.13080

Lack of childcare causing stress for HC workers

- In this survey study, between April and December 2020, high childcare stress was associated with 80% greater odds of burnout in all healthcare workers.

The screenshot shows the top portion of a research article. At the top left is the JAMA Network Open logo. Below it, the article title is displayed in a large, bold font. Underneath the title is the author list. The article is categorized as an 'Original Investigation' in the field of 'Occupational Health'. The abstract section is divided into several parts: 'Importance', 'Objective', 'Design, Setting, and Participants', 'Main Outcomes and Measures', and 'Results'. To the right of the abstract is a 'Key Points' section, which includes a 'Question', 'Findings', and 'Meaning'. At the bottom of the article preview, there are links for 'Multimedia' and 'Supplemental content', along with a note that author affiliations and article information are listed at the end of the article.

JAMA Network Open

Original Investigation | Occupational Health

Childcare Stress, Burnout, and Intent to Reduce Hours or Leave the Job During the COVID-19 Pandemic Among US Health Care Workers

Elizabeth M. Hany, MD; Lindsey E. Carlazare, MBA; Christine A. Sinsky, MD; Roger L. Brown, PhD; Elizabeth Goetz, MD; Nancy Nankivil, BS; Mark Linzer, MD

Abstract

IMPORTANCE Childcare stress (CCS) is high during the COVID-19 pandemic because of remote learning and fear of illness transmission in health care workers (HCWs). Associations between CCS and burnout, intent to reduce (ITR) hours, and intent to leave (ITL) are not known.

OBJECTIVE To determine associations between CCS, anxiety and depression, burnout, ITR in 1 year, and ITL in 2 years.

DESIGN, SETTING, AND PARTICIPANTS This survey study, Coping with COVID, a brief work-life and wellness survey of US HCWs, was conducted between April and December 2020, assessing CCS, burnout, anxiety, depression, workload, and work intentions. The survey was distributed to clinicians and staff in participating health care organizations with more than 100 physicians. Data were analyzed from October 2021 to May 2022.

MAIN OUTCOMES AND MEASURES The survey asked, “due to...COVID-19, I am experiencing concerns about childcare;” and the presence of CCS was considered as a score of 3 or 4 on a scale from 1, not at all, to 4, a great extent. The survey also asked about fear of exposure or transmission, anxiety, depression, workload, and single-item measures of burnout, ITR, and ITL.

RESULTS In 208 organizations, 58 408 HCWs (15 766 physicians [26.9%], 11 409 nurses [19.5%], 39 218 women [67.1%], and 33 817 White participants [57.9%]) responded with a median organizational response rate of 32%. CCS was present in 21% (12 197 respondents) of HCWs. CCS was more frequent among racial and ethnic minority individuals and those not identifying race or ethnicity vs White respondents (5028 respondents [25.2%] vs 6356 respondents [18.8%]; $P < .001$; proportional difference, -71 ; 95% CI, -7.8 to -6.3) and among women vs men (8281 respondents [21.1%] vs 2573 respondents [17.9%]; odds ratio [OR], 1.22; 95% CI, 1.17 to 1.29). Those with CCS had 80% greater odds of anxiety or depression (OR, 1.16; 95% CI, 1.04 to 1.28; $P < .001$) and 80% greater

Key Points

Question Is high childcare stress (CCS) associated with burnout, intent to reduce clinical hours, and intent to leave the job among US health care workers during the COVID-19 pandemic?

Findings In this survey study, with 58 408 respondents conducted between April and December 2020, high CCS was associated with 80% greater odds of burnout in all health care workers.

Meaning These findings suggest there is an association between reporting high CCS and burnout, and programs to reduce CCS may be beneficial for workers and health systems.

+ Multimedia

+ Supplemental content

Author affiliations and article information are listed at the end of this article.

Source: Harry EM, Carlazare LE, Sinsky CA, et al. Childcare Stress, Burnout, and Intent to Reduce Hours or Leave the Job During the COVID-19 Pandemic Among US Health Care Workers. JAMA Netw Open. 2022;5(7):e2221776. doi:10.1001/jamanetworkopen.2022.21776

Resilience and burnout among physicians

JAMA Network | **Open.**

Original Investigation | Psychiatry

Resilience and Burnout Among Physicians and the General US Working Population

Colin P. West, MD, PhD; Liselotte N. Dyrbye, MD, MHPE; Christine Sinsky, MD; Mickey Trockel, MD, PhD; Michael Tutty, PhD; Laurence Nedelec, PhD; Lindsey E. Carlasare, MBA; Tait D. Shanafelt, MD

Abstract

IMPORTANCE The prevalence of physician burnout is well documented, and resilience training has been proposed as an option to support physician well-being. However, the resilience of physicians compared with that of the US working population is not established, and the association between resilience and physician burnout is not well understood.

OBJECTIVES To evaluate resilience among physicians and US workers, and to determine the association between resilience and burnout among US physicians.

DESIGN, SETTING, AND PARTICIPANTS A cross-sectional national survey study of 5445 US physicians and a probability-based sample of 5198 individuals in the US working population was conducted between October 12, 2017, and March 15, 2018.

MAIN OUTCOMES AND MEASURES Resilience was measured using the 2-Item Connor-Davidson Resilience Scale (total scores range from 0-8; higher scores indicate greater resilience); burnout was measured using the full Maslach Burnout Inventory with overall burnout indicated by a score of at least 27 on the 0 to 54 emotional exhaustion subscale and/or at least 10 on the depersonalization subscale (higher scores indicate greater burnout).

RESULTS Of 30 456 physicians who received an invitation to participate, 5445 (17.9%) completed surveys (2995 men [62.1%]; median [IQR] age of 53 [42-62] years). In multivariable analysis, mean (SD) resilience scores were higher among physicians than the general employed population (6.49 [1.30] vs 6.25 [1.37]; adjusted mean difference, 0.25 points; 95% CI, 0.19-0.32; $P < .001$). Among physicians, resilience was associated with burnout. Physicians without overall burnout had higher mean (SD) resilience scores than physicians with burnout (6.82 [1.15] vs 6.13 [1.36]; adjusted mean difference, 0.69 points; 95% CI, 0.61-0.76; $P < .001$). Each 1-point increase in resilience score was

Key Points

Question How resilient are physicians compared with US workers, and what is the association between resilience and burnout among physicians?

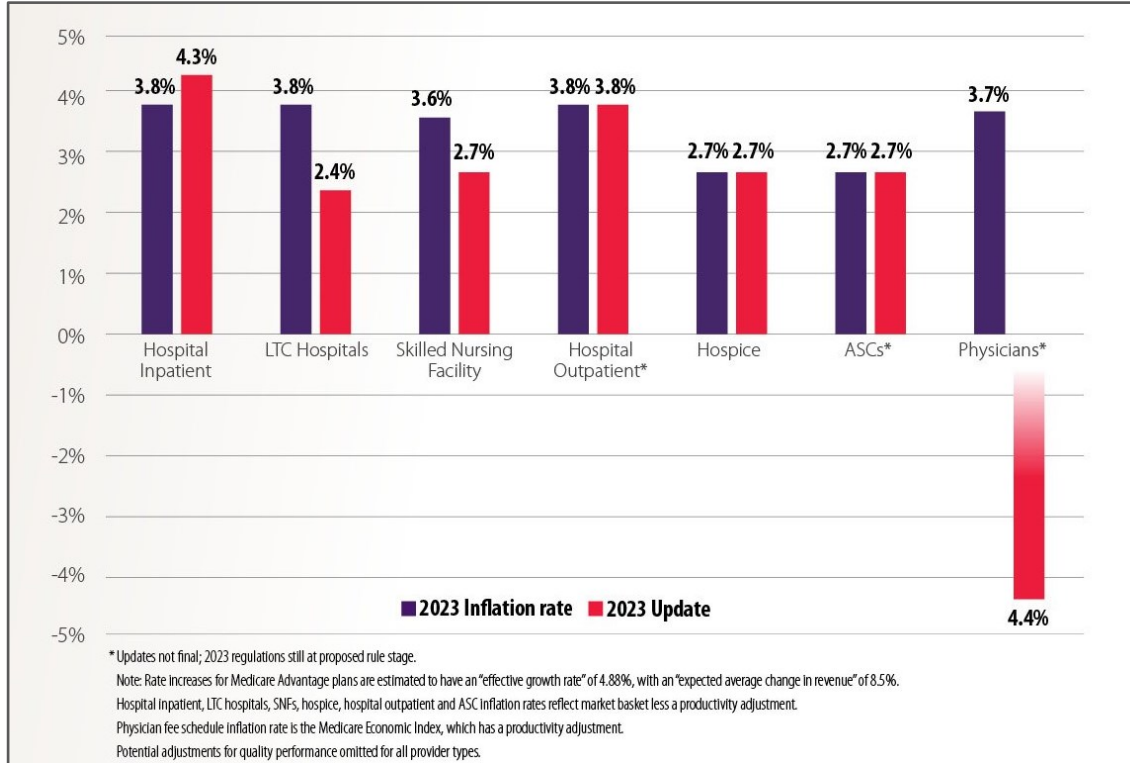
Findings In this cross-sectional survey study of 5445 respondents from among 30 456 physicians, the physicians had significantly higher resilience scores than the general employed US population. Higher resilience scores were associated with lower burnout rates, but even the most resilient physicians had substantial rates of burnout.

Meaning The findings suggest that, although maintaining and strengthening resilience is important, physicians overall do not have a deficit in resilience; additional solutions, including efforts to address system issues in the clinical care environment, are needed to reduce burnout and promote physician well-being.

- Physicians have higher resilience than the general employed US population.
- Even highly resilient physicians have substantial rates of burnout.

Source: West CP, Dyrbye LN, Sinsky C, et al. Resilience and Burnout Among Physicians and the General US Working Population. *JAMA Netw Open.* 2020;3(7):e209385. doi:10.1001/jamanetworkopen.2020.9385

Medicare provider updates for 2023



Source: AMA data

Problem-solving workforce crisis

- Encourage changes to education and training that promote the clinical workforce needed for the coming decade
 - Diversity
 - Geography
 - Specialty
- Create a simple, relevant, and predictable payment system for physicians
 - Ensuring financial stability and predictability
 - Promoting value-based care
 - Safeguarding access to high-quality care
- Eliminate administrative burdens that take clinician focus away from patient care
- Support advances in new technology and delivery models that advance high-quality patient care
- Turn the tide on misinformation and increase support for the sciences