1. Sanchis-Gomar F, Lavie CJ, Perez-Quilis C, Henry BM, Lippi G. In Reply - angiotensin-converting enzyme 2 and the resolution of inflammation: in support of continuation of prescribed angiotensin-converting enzyme inhibitors and angiotensin-receptor blockers. *Mayo Clin Proc*. 2020;95(7):1553-1556.
2. Sanchis-Gomar F, Lavie CJ, Perez-Quilis C, Henry BM, Lippi G. Angiotensin-converting enzyme 2 and anti-hypertensives (angiotensin receptor blockers and angiotensin converting enzyme inhibitors) in coronavirus disease 2019 (COVID-19). *Mayo Clin Proc*. 2020;95(6):1222-1230.
3. Garg A, Rout A, Sharma A, Fiorello B, Kostis JB. Association of renin angiotensin system blockers with outcomes in patients with COVID-19. *Mayo Clin Proc*. 2020. https://doi.org/10.1016/jmayocp.2020.09.010 [Epub ahead of print].
4. Lopez-Otero D, Lopez-Pais J, Cacho-Antonio CE, et al. Impact of angiotensin-converting enzyme inhibitors and angiotensin receptor blockers on COVID-19 in a western population. CARDIOVID registry. *Rev Esp Cardiol (Engl Ed)*. 2020. https://doi.org/10.1016/j.rec.2020.1005.1018 [Epub ahead of print].
5. Iaccarino G, Grassi G, Borghi C, et al. Age and multimorbidity predict death among COVID-19 patients: results of the SARS-RAS study of the Italian Society of Hypertension. *Hypertension*. 2020;76(2):366-372.
6. Nunes JPL. Mortality and use of angiotensin converting enzyme inhibitors in Covid 19 disease: a systematic review. *medRxiv*. 2020. https://doi.org/10.1101/2020.05.29.20116483.
7. Henry BM, Benoit S, Lippi G, Benoit J. Circulating plasma levels of angiotensin II and aldosterone in patients with coronavirus disease 2019 (COVID-19): a preliminary report. *Prog Cardiovasc Dis*. 2020. https://doi.org/10.1016/j.pcad.2020.07.006 [Epub ahead of print].
8. Liu Y, Yang Y, Zhang C, et al. Clinical and biochemical indexes from 2019-nCoV infected patients linked to viral loads and lung injury. *Sci China Life Sci*. 2020;63(3):364-374.

https://doi.org/10.1016/j.mayocp.2020.09.011

Responsibilities and Job Characteristics of Health Care Chief Wellness Officers in the United States

To The Editor: The high prevalence of occupational distress in physicians and other health care professionals relative to workers in other fields has been recognized over the past decade.[1] Appreciation that this problem is due to characteristics of the practice environment, rather than deficits in personal resilience, has helped focus mitigation efforts on improving characteristics of organizational culture and practice efficiency.[2] Many organizations have also been motivated to act on the basis of the evidence of a link between occupational distress in health care professionals and quality of care, patient experience, turnover, and the economic health of the organization.[3] This chronic occupational distress has only been exacerbated by the coronavirus disease 2019 pandemic, spurring even more organizations to attend to this issue.

Organizational progress requires system-level infrastructure and leadership. In recognition of this fact, leaders from across the country, including the presidents of the Association of American Medical Colleges, American College of Graduate Medical Education, and the National Academy of Medicine have recommended that every large health care organization create an executive-level leader or "chief wellness officer" (CWO) position to oversee such efforts.[2,4] This recommendation was subsequently also affirmed by the National Academy of Medicine.[2] Health care CWOs play a role distinct from CWOs outside of health care who typically focus on leading workplace wellness programs with the goal of promoting healthy lifestyle (eg, smoking cessation, weight loss, and stress reduction) and reducing organizational employee health care costs. After Stanford University created one of the first health care CWO position in 2017, a number of organizations have subsequently followed suit. Although recent articles have articulated design considerations for organizational programs on health care professional well-being as well as recommendations addressing the roles and responsibilities of the health care CWO,[5] there is little information published regarding the typical responsibilities and job characteristics of existing health care CWOs in the United States.

In mid-2019, we formed the Collaborative for Healing and Renewal in Medicine CWO Network. Formal criteria for members were established in February 2021 (Appendix 1, available online at http://www.mayoclinicproceedings.org). This network comprises health care CWOs or equivalent executive-level leaders responsible for overseeing the health care professional well-being efforts of their institutions. In early 2020, we asked network members to describe the characteristics of their positions and summarize here the profile of 21 health care CWOs across the United States. Analysis of these data for publication was deemed exempt by the Stanford Institutional Review Board.

The organizations represented by these CWOs are listed in Appendix 2 (available online at http://www.mayoclinicproceedings.org). In aggregate, 18 of 21 participating CWOs (85.7%) were located at university-affiliated academic centers. The primary organizational motivation for establishing a CWO was reported to be a desire to reduce burnout and increase professional fulfillment (n=16 [76.2%]), with fewer respondents reporting a desire to reduce depression/suicide (n=2 [9.5%]), reduce turnover (n=1 [4.8%]), generate a financial return on investment (n=1 [4.8%]), or reduce health care costs by improving the health of the workforce (n=1 [4.8%]).

The position title for most of these individuals (17 of 21 [81.0%]) (Table) was CWO. Most (18 of 21 [85.7%]) devoted 50% or more of their professional work effort to their CWO role, with nearly 40% (8 of 21) dedicating 70% or

TABLE. Chief Wellness Officer Position Description (N=21)[a]

Description	Value[b]
Organization description	
University-affiliated academic medical center	18 (85.7)
Non–university-affiliated academic medical center	1 (4.8)
Nonacademic medical center/practice group	1 (4.8)
Health network affiliate with an academic medical center	1 (4.8)
Job title[c]	
Chief Wellness Officer	17 (81.0)
Associate or Senior Associate Dean	2 (9.5)
Assistant Dean	2 (9.5)
Assistant Vice-Chancellor for Campus Wellness	1 (4.8)
Associate Provost	1 (4.8)
Medical Director, Office of the Chief Medical Officer	1 (4.8)
Senior Director of Clinical Affairs	1 (4.8)
VP Physician Services	1 (4.8)
VP, Associate Chief Medical Officer	1 (4.8)
Protected time devoted to a role	
Median (interquartile range) (%)	50 (50-70)
<50%	3 (14.3)
50%-69%	10 (47.6)
≥70%	8 (38.1)
Report to	
Chief executive officer, dean, provost, vice-chancellor, vice-dean	12 (57.1)
Chief medical officer, chief clinical officer, chief physician executive	7 (33.3)
Other	2 (9.5)
Manage an independent budget	
Yes	16 (76.2)
No	3 (14.3)
Managed jointly with vice-dean for faculty	1 (4.8)
Missing	1 (4.8)
Occupations responsible for (multiple-response question)[c]	
Practicing physicians	20 (95.2)
Residents and fellows	16 (76.2)
Medical students	9 (42.9)
Graduate students	6 (28.6)
Biomedical scientists (nonphysician faculty for academic medical centers)	9 (42.9)
Advanced practice providers (ie, nurse practitioners and physician assistants)	16 (76.2)
Nurses	8 (38.1)
Other clinicians (eg, pharmacists, physical therapists, and respiratory technicians)	8 (38.1)
Nonclinical employees (eg, information technology personnel, administrative staff, appointment coordinators, custodial staff)	6 (28.6)
Other	4 (19.0)
Topic areas of chief wellness officer responsibility	
Peer support program	
Responsible to oversee	8 (38.1)
Advise but not oversee	11 (52.4)
Not part of my current role	1 (4.8)
NA	1 (4.8)
Leadership development related to well-being	
Responsible to oversee	11 (52.4)
Advise but not oversee	9 (42.9)
Not part of my current role	1 (4.8)
EHR efficiency/usability	

Continued on next page

TABLE. Continued

Description	Value[b]
Topic areas of chief wellness officer responsibility, continued	
Responsible to oversee	0 (0)
Advise but not oversee	19 (90.5)
Not part of my current role	2 (9.5)
Mental health care	
Responsible to oversee	6 (28.6)
Advise but not oversee	14 (66.7)
Not part of my current role	1 (4.8)
Personal resilience	
Responsible to oversee	9 (42.9)
Advise but not oversee	9 (42.9)
Not part of my current role	3 (14.3)
Professionalism	
Responsible to oversee	1 (4.8)
Advise but not oversee	12 (57.1)
Not part of my current role	7 (33.3)
NA	1 (4.8)
Teamwork	
Responsible to oversee	1 (4.8)
Advise but not oversee	12 (57.1)
Not part of my current role	7 (33.3)
NA	1 (4.8)
Onboarding	
Responsible to oversee	3 (14.3)
Advise but not oversee	12 (57.1)
Not part of my current role	5 (23.8)
NA	1 (4.8)
Self-care (sleep, diet, exercise, rest, and breaks)	
Responsible to oversee	6 (28.6)
Advise but not oversee	13 (61.9)
Not part of my current role	2 (9.5)
Cultivating sense of community and camaraderie	
Responsible to oversee	15 (71.4)
Advise but not oversee	5 (23.8)
Not part of my current role	0 (0)
NA	1 (4.8)
Expected to conduct and publish research	
Yes	12 (57.1)
No, but considered desirable	8 (38.1)
No	1 (4.8)
Organization's primary motivation for creating a chief wellness officer position	
Reduce burnout and increase professional fulfillment	16 (76.2)
Reduce turnover	1 (4.8)
Reduce depression and/or suicide	2 (9.5)
Reduce health care costs by improving health (eg, smoking cessation, reduce obesity, and hypertension control)	1 (4.8)
Generate a financial return on investment	1 (4.8)

[a]EHR, elctronic health records; NA, not applicable.
[b]Data are presented as No. (percentage) unless otherwise specified.
[c]Multiple responses allowed, so total adds to >100%.

more effort to the role. Although the reporting structure varied, 12 of 21 CWOs (57.1%) reported directly to the dean, chief executive officer, provost, vice-chancellor, or vice-dean. An additional 7 (33.3%) reported to the chief medical officer, chief clinical officer, or chief physician executive. Sixteen CWOs (76.2%) reported managing an independent budget. The median full-time equivalent of direct reports to the CWO was 1.8 (interquartile range [IQR], 1.0-4.0). All 21 CWOs indicated that the source of support for their time and program was institutional operational funds.

With respect to scope, CWOs were responsible for overseeing organizational efforts to support the well-being of a median of 5000 (IQR, 2150-13,500) individuals including a median of 2100 (IQR, 1400-4000) physicians. Twenty CWOs (95.2%) were responsible for efforts to advance well-being for practicing physicians, 16 (76.2%) for residents/fellows, 9 (42.9%) for medical students, and 9 (42.9%) for biomedical scientist faculty. With respect to non-physicians/nonfaculty, most CWOs (n=16 [76.2%]) were responsible for efforts to advance well-being for advanced practice providers (nurse practitioners and physician assistants) whereas less than half were responsible for nurses (n=8 [38.1%]), graduate students (n=6 [28.6%]), other clinicians (eg, pharmacists, physical therapists, and respiratory technicians; n=8 [38.1%]), or nonclinical employees (information technology, administrative staff, and custodial staff; n=6 [28.6%]). Common topic areas of CWO responsibility are summarized in the Table.

In summary, leading organizations have begun to take substantive action to mitigate occupational distress in physicians and other health care professionals. The CWO plays a pivotal role in leading organizational efforts to improve professional well-being. We believe that the information presented here may be helpful to other organizations creating CWO positions, particularly in the wake of the coronavirus disease 2019 pandemic. Organizational efforts to improve well-being should center on addressing problems in the practice environment and organizational culture, rather than attempting to make individuals better equipped to endure broken systems.

SUPPLEMENTAL ONLINE MATERIAL

Supplemental material can be found online at: http://www.mayoclinicproceedings.org. Supplemental material attached to journal articles has not been edited, and the authors take responsibility for the accuracy of all data.

Tait Shanafelt, MD
Stanford University School of Medicine
Stanford, CA

Heather Farley, MD, MHCDS
ChristianaCare
Wilmington, DE

Hanhan Wang, MPS
Stanford University School of Medicine
Stanford, CA

Jonathan Ripp, MD, MPH
Icahn School of Medicine at Mount Sinai
New York, NY

Potential Competing Interests: Dr Shanafelt is a coinventor of the Well-being Index instruments and the Participatory Management Leadership Index. Mayo Clinic holds the copyright of these instruments and has licensed them for use outside Mayo Clinic. Dr Shanafelt receives a portion of any royalties paid to Mayo Clinic. As an expert on the well-being of health care providers, Dr Shanafelt frequently gives ground rounds/key note lecture presentations and advises health care organizations. He receives honoraria for some of these activities.

ORCID
Tait Shanafelt: https://orcid.org/JMCP3107_0000-0002-7106-5202

1. Shanafelt TD, West CP, Sinsky C, et al. Changes in burnout and satisfaction with work-life integration in physicians and the general US working population between 2011 and 2017. *Mayo Clin Proc.* 2019;94(9):1681-1694.
2. National Academies of Sciences, Engineering, and Medicine; National Academy of Medicine; Committee on Systems Approaches to Improve Patient Care by Supporting Clinician Well-Being. *Taking Action Against Clinician Burnout: A Systems Approach to Professional Well-Being*. Washington, DC: National Academies Press (US); 2019.
3. Tawfik DS, Scheid A, Profit J, et al. Evidence relating health care provider burnout and quality of care: a systematic review and meta-analysis. *Ann Intern Med.* 2019;171(8):555-567.
4. Kishore S, Ripp J, Shanafelt T, et al. Making the case for the chief wellness officer in America's health systems: a call to action. Health Affairs website. https://www.healthaffairs.org/do/10.1377/hblog20181025.308059/abs/. Published October 26, 2018. Accessed October 6, 2020.
5. Ripp J, Shanafelt T. The health care chief wellness officer: what the role is and is not. *Acad Med.* 2020;95(9):1354-1358.

https://doi.org/10.1016/j.mayocp.2020.09.004

Patient-Centered, Physician-Investigator Friendly Pragmatic Phase I/II Trial Designs—The 4P Model

To the Editor: Traditional dose finding studies designed around safety and toxicity offer no flexibility for physician-investigators or patients. With the recent advent of targeted and immunotherapy, a few early-phase trials in oncology have started opening up physician-investigators' flexibility to exercise their clinical judgment in the evaluation and care of their enrolled patients. For example, immunotherapy trials may allow treatment past progression for investigator-perceived clinical benefit. Yet still most trials mandate that patients come off trial based on RECIST measures, and only a few are flexible to continue beyond clinical progression for