MAYO CLINIC

Advancing Physician Well-Being: A Population Health Framework

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Physician well-being is an important societal issue because physician performance in the world and at work matters to everyone. Outside of medical practice, physicians provide front-line perspectives on health and human experience to communities, organizations, and political systems. Within medical practice, their clinical acumen can — and often does — tip the balance for individual patients from death to life. Physicians also provide care for the growing number of patients suffering with mental illness — the leading global morbidity burden.[1] Yet evidence indicates that many physicians struggle with serious mental health problems of their own, including higher risk of suicide compared with other professionals.[2]

Although tragic, risk of suicide represents an extreme example of occupational and emotional distress in physicians.[3] Other manifestations include fatigue, struggles with work-life integration, moral distress, loss of meaning in work, and professional burnout. Occupational burnout is the most widely studied dimension of physician distress with a series of studies indicating that physicians are at higher risk for burnout than workers in other fields.[3] Burnout is associated with depression, suicidal ideation, problematic alcohol use, and motor vehicle accidents[4]; and it affects the quality of care physicians provide patients.[5] Burnout is primarily driven by characteristics of the work environment, and organizational system factors driving this phenomena warrant particular attention.

SYSTEM FACTORS CONTRIBUTING TO THE PROBLEM

Physicians begin their training with lower burnout and better-than-average mental health.[6] During their training, this mental health advantage reverses.[6] Compared with other populations, physicians in practice have higher levels of burnout but similar — not higher — levels of depressive symptoms.[7] These studies indicate that it is work-specific distress manifesting as occupational burnout[8] rather than global mental health problems that is increased among physicians.[3] This observation is consistent with the hypothesis that physicians, on average, are robust people who often experience immense stress due to the rigors of professional training and the practice of medicine.

Professional burnout is, in large part, driven by a mismatch between job demands and the resources, flexibility, and support provided to help meet those demands.[9] Although the practice of medicine has always been demanding, recent changes in the clinical environment and care delivery systems over the past decade have created new challenges. The widespread implementation of electronic health records has changed the way in which physicians work and made it more difficult for physicians to disconnect from work.[10,11] Increased time spent interacting with the electronic health records rather than colleagues has also created a sense of isolation among many physicians that has insidiously eroded the sense of community, connection, and support from colleagues traditionally characteristic of the profession.

Pressure to contain cost and increase access has led many organizations to focus on productivity (eg, volume of clinical services provided) and financially driven performance metrics that can become incongruent with the altruistic values and

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human-human interactions that attracted many physicians to medicine. The high prevalence of occupational distress among physicians and the complex contributing factors warrant a comprehensive solution.

A POPULATION HEALTH APPROACH TO PROMOTE WELL-BEING FOR PHYSICIANS

A population health approach addresses the factors that influence health, assesses patterns of their occurrence, and applies results to develop and implement strategies to improve the health and well-being of the population. A comprehensive population mental-health approach includes universal prevention strategies for the entire population, selective prevention strategies delivered to individuals at higher than average risk of illness, indicated prevention strategies targeting individuals with mild symptoms of mental illness that do not meet diagnostic criteria, and treatment for individuals who do meet diagnostic criteria for mental illness.[12]

We propose a professional well-being–focused population health approach for physicians that modifies the traditional framework.[12] The approach expands selective prevention to include individuals at higher-than-average risk for work-specific distress (burnout) and indicated intervention to include individuals who are already experiencing significant levels of burnout (Figure). Focus on work-specific distress may provide a gateway to mental health promotion for physicians who otherwise may avoid treatment for mental health issues due to stigma and related fear of adverse professional consequences.[13] The ideal population health approach to advance physician well-being will include organization and individual physician level needs assessment to drive tailored interventions at both levels.

Organization Level Strategies to Promote Professional Fulfillment

Because a majority of physicians work in systems and organizations, the population health approach for physician well-being we propose builds on a foundation that includes strategies to engage the organizations where physicians work. Although the literature has primarily evaluated physician well-being using metrics of distress,[14] a comprehensive approach for physician health combines strategies to promote well-being measurable in positive terms along with strategies to prevent distress, illness, and death. One occupational indicator of well-being measured in positive terms is professional fulfillment, which is associated with both avoidance of burnout and higher quality of life in physicians.[15]

Organizational efforts to promote professional fulfillment must address culture and climate variables such as supportive leadership, psychological safety, appreciation, professionalism, and mission alignment. One best-practice strategy to improve these factors is providing leaders with feedback derived from evaluations by those they lead, using standardized assessment of leadership behaviors that promote professional fulfillment.[16] Regular feedback coupled with training and leadership coaching where indicated will help leaders shape the culture of their organizations. Systematic approaches to solicit physicians' opinions regarding opportunities to improve the practice environment and empowering them to help lead efforts to develop and implement such changes can also be transformative.[17]

Universal, Selective, and Indicated Strategies to Prevent Burnout

Individual and organizational strategies to prevent occupational distress and strengthen personal resilience are also required.[18] Individual physician level strategies require attention to personal values, self-care, relationships, self-compassion, and cultivating meaning in work. Universal strategies target all physicians in the group (eg, scribes for all primary care doctors), not just those with — or at high risk for — burnout. Organizational-level strategies target factors such as work-flow efficiency, improved teamwork, workplace communication, or community building. Specific organizational-level strategy examples in primary care include pre-visit lab tests, standardized annual renewal of long-term

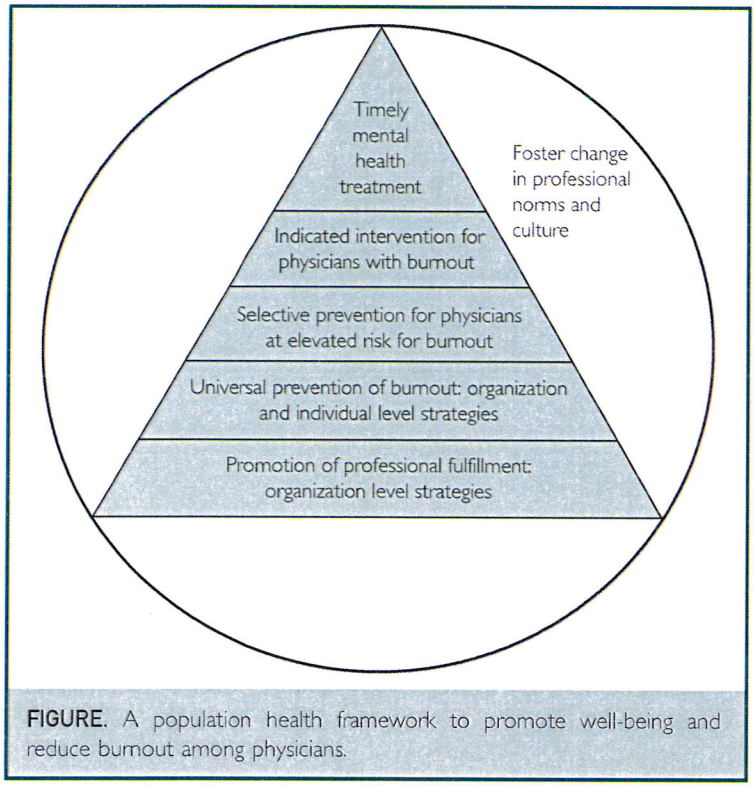

FIGURE. A population health framework to promote well-being and reduce burnout among physicians.

medications, and an expanded role for medical assistants to help with order entry and drafting the clinical encounter note.[19]

Selective prevention strategies target physicians at increased risk for burnout. An example of a selective burnout prevention strategy is providing longitudinal support to physicians who have been named in a malpractice case. Physicians are preferentially "selected" for this resourse allocation, whether or not they are experiencing significant burnout, because being named in a malpractice case is a risk factor for burnout.

Indicated interventions are typically more resource intensive and are reserved for the subset of physicians experiencing significant job-related distress (burnout). An example of an indicated intervention for burnout is individual professional coaching.[20]

Timely Treatment for Mental Illness

A population health approach must also facilitate timely intervention for individuals with clinically defined mental illness — which typically involves generalized rather than occupational-specific distress. Facilitating timely treatment includes efforts to mitigate stigma and other barriers to physicians seeking treatment, such as factors related to the licensing and credentialing process. High correlation between occupational burnout and symptoms of depression and anxiety[15] suggest utility of screening for these conditions among physicians experiencing burnout. Screening results should facilitate access to mental health providers who are adept at addressing the unique needs of physicians, including the role of medical practice stressors that may precipitate or perpetuate mental illness. Flexibility in appointment scheduling and availability of video conferencing sessions may attenuate barriers that otherwise prevent physicians from accessing care.

EXAMPLE OF AN EARLY-ADOPTER POPULATION HEALTH APPROACH

The state of California is creating precisely such a comprehensive, statewide population health approach to physician well-being for its 110,000 physicians. The Well Physician—California program, designed by the Stanford University WellMD Center and funded by the California Medical Association, includes the full spectrum of strategies in the population health framework (Table).

These strategies will be delivered through a combination of online resources, local communities of physicians, centrally coordinated peer-support and coaching resources, free week-long recovery programs for physicians with severe burnout who are considering leaving the profession, and a robust and vetted referral network of mental health care professionals across the state trained to deliver timely treatment to physicians when needed. All licensed physicians in the state will receive invitations to complete self-assessment along with delivery of personalized recommendations regarding resources in the program they may find most helpful. The program also includes a robust process to support and engage the organizations in which physicians work through longitudinal assessment, customized reports with benchmarking, and partnership, as

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TABLE. Well-Physician California: A Population Health Approach to Promote Physician Well-Being

Intervention level	Initial planned strategies
Foster change in professional norms and culture	Advocacy for necessary regulatory and policy changes
	Improve the efficiency of the practice environment (eg, attenuate "prior authorization" burden).
	Reduce barriers to seeking help (eliminate medical board licensing policies that penalize physicians who seek care for mental health issues)
	Systematic engagement of organizations
	Assess level of burnout and professional well-being and provide state-level benchmarks
	Guide senior leaders in interpretation of assessment results and a framework for action
	Engage physicians in the organization to identify opportunities to build values alignment and improve the practice environment
	Convene graduate and undergraduate medical education leaders
	Share best practices and identify gaps
	Create consensus training well-being standards across the state
	Develop flexible but consistent curriculum (shared framework)
Promotion of professional fulfillment: organization level strategies	Sponsored participation for immersion Chief Wellness Officer training through existing Stanford Program
	Leadership Academy for first-line leaders to cultivate leadership skills that promote professional fulfillment
	Disseminate best practices to promote psychological safety, appreciation, vulnerability, professionalism, mission alignment, and compassion for patients, colleagues and self
Universal prevention of burnout: organization and individual level strategies	Online interactive tools to self-calibrate
	Individualized feedback linked to resources for wellness promotion
	Maintenance of Certificaiton and Continuing Medical Education certified well-being training modules
	Develop communities of physicians through a state-wide commensality group program
Selective prevention for physicians at elevated risk for burnout	Provide timely resources and support for physicians named in malpractice suits or dealing with difficult clinical outcomes (eg, peer support program)
	Provide timely resources for physicians in transition (eg, facilitated mentorship at the health care organization or county medical society level, for newly licensed physicians in the state or physicians joining the organization)
Indicated intervention for physicians with burnout	Professional coaching for physicians with mild to moderate burnout
	Free 1 week retreat available 4 times per year to begin process of recovery for physicians experiencing severe burnout
Timely mental health treatment	Online self-assessment linked to modules with information regarding mental health issues
	Vetted network of health care providers across the state with expertise in physician mental health, able to deliver rapid access

well as training for both executive and first-line leaders in those organizations to help them strengthen organizational culture and improve the practice environment. Undergraduate and post-graduate medical education leaders across the state will be convened to create standardized physician well-being curriculum objectives. The program also includes state- and federal-level advocacy to promote necessary regulatory and policy changes to address issues in the health care delivery system that contribute to clinician distress.

The endeavor includes rigorous quantitative and qualitative data analysis to guide development, evaluation, and iterative improvement of program components at each level of the population health framework.

IDEAL FUTURE STATE

We envision a future state for the profession of medicine characterized by highly engaged, professionally fulfilled, and dedicated physicians practicing in a thoughtfully designed environment. A population health approach to achieve this future state is characterized by an integrated set of universal strategies to promote well-being for all physicians, selective prevention for groups of physicians at higher than average risk, indicated intervention for individual physicians experiencing job-related distress, and unfettered access to treatment for physicians with anxiety, depression, or suicidal ideation. For optimum efficacy, this approach must engage organizations and incite change in the culture of medicine by promulgating a professional environment of self-care, community, peer-support, and help-seeking when distress occurs.[21] Large-scale implementation of this approach is already underway in California.

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REFERENCES

1. Vigo D, Thornicroft G, Atun R. Estimating the true global burden of mental illness. *Lancet Psychiatry*. 2016;3(2):171-178.
2. Schernhammer ES, Colditz GA. Suicide rates among physicians: a quantitative and gender assessment (meta-analysis). *Am J Psychiatry*. 2004;161(12):2295-2302.
3. 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.
4. West CP, Dyrbye LN, Shanafelt TD. Physician burnout: contributors, consequences and solutions. *J Intern Med*. 2018;283(6):516-529.
5. Panagioti M, Geraghty K, Johnson J, et al. Association between physician burnout and patient safety, professionalism, and patient satisfaction: a systematic review and meta-analysis. *JAMA Intern Med*. 2018;178(10):1317-1331.
6. Brazeau CM, Shanafelt T, Durning SJ, et al. Distress among matriculating medical students relative to the general population. *Acad Med*. 2014;89(11):1520-1525.
7. Shanafelt TD, Boone S, Tan L, et al. Burnout and satisfaction with work-life balance among US physicians relative to the general US population. *Arch Intern Med*. 2012;172(18):1377-1385.
8. West CP, Huschka MM, Novotny PJ, et al. Association of perceived medical errors with resident distress and empathy: a prospective longitudinal study. *JAMA*. 2006;296(9):1071-1078.
9. Maslach C, Leiter MP. Understanding the burnout experience: recent research and its implications for psychiatry. *World Psychatry*. 2016;15(2):103-111.
10. Sinsky C, Colligan L, Li L, et al. Allocation of Physician Time in Ambulatory Practice: A Time and Motion Study in 4 Specialties. *Ann Intern Med*. 2016;165(11):753-760.
11. Arndt BG, Beasley JW, Watkinson MD, et al. Tethered to the EHR: primary care physician workload assessment using EHR event log data and time-motion observations. *Ann Fam Med*. 2017;15(5):419-426.
12. Munoz RF, Mrazek PJ, Haggerty RJ. Institute of Medicine report on prevention of mental disorders. Summary and commentary. *Am Psychol*. 1996;51(11):1116-1122.
13. Bianchi R, Verkuilen J, Brisson R, Schonfeld IS, Laurent E. Burnout and depression: Label-related stigma, help-seeking, and syndrome overlap. *Psychiatry Res*. 2016;245:91-98.
14. Brady KJS, Trockel MT, Khan CT, et al. What Do We Mean by Physician Wellness? A Systematic Review of Its Definition and Measurement. *Acad Psychiatry*. 2018;42(1):94-108.
15. Trockel M, Bohman B, Lesure E, et al. A brief instrument to assess both burnout and professional fulfillment in physicians: reliability and validity, including correlation with self-reported medical errors, in a sample of resident and practicing physicians. *Acad Psychiatry*. 2018;42(1):11-24.
16. Shanafelt TD, Gorringe G, Menaker R, et al. Impact of organizational leadership on physician burnout and satisfaction. *Mayo Clin Proc*. 2015;90(4):432-440.

17. Swensen S, Kabcenell A, Shanafelt T. Physician-organization collaboration reduces physician burnout and promotes engagement: the Mayo Clinic experience. *J Healthc Manag*. 2016;61(2):105-127.
18. West CP, Dyrbye LN, Erwin PJ, Shanafelt TD. Interventions to prevent and reduce physician burnout: a systematic review and meta-analysis. *Lancet*. 2016;388(10057):2272-2281.
19. Sinsky CA, Willard-Grace R, Schutzbank AM, Sinsky TA, Margolius D, Bodenheimer T. In search of joy in practice: a report of 23 high-functioning primary care practices. *Ann Fam Med*. 2013;11(3):272-278.
20. Dyrbye LN, Shanafelt TD, Gill PR, Satele DV, West CP. Effect of a professional coaching intervention on the well-being and distress of physicians: a pilot randomized clinical trial. *JAMA Intern Med*. 2019;179(10):1406-1414.
21. Shanafelt TD, Schein E, Minor LB, Trockel M, Schein P, Kirch D. Healing the Professional Culture of Medicine. *Mayo Clin Proc*. 2019;94(8):1556-1566.