



Organizational strategies to reduce physician burnout and improve professional fulfillment

Kristine Olson, MD, MSc,^{a,*} Daniel Marchalik MD,^b Heather Farley, MD,^c Shannon M. Dean, MD,^d Elizabeth C. Lawrence, MD, FACP,^e Maryam S. Hamidi, PhD,^f Susannah Rowe MD, MPH,^g Joanne M. McCool, MSOD,^h Cormac A. O'Donovan, MD,ⁱ Mark A. Micek, MD, MPH,^d and Miriam T. Stewart, MD^h

Burnout is highly prevalent among physicians and has been associated with negative outcomes for physicians, patients, staff, and health-care organizations. Reducing physician burnout and increasing physician well-being is a priority. Systematic reviews suggest that organization-based interventions are more effective in reducing physician burnout than interventions targeted at individual physicians. This consensus review by leaders in the field across multiple institutions presents emerging trends and exemplary evidence-based strategies to improve professional fulfillment and reduce physician burnout using Stanford's tripartite model of physician professional fulfillment

as an organizing framework: practice efficiency, culture, and personal resilience to support physician well-being. These strategies include leadership traits, latitude of control and autonomy, collegiality, diversity, teamwork, top-of-license workflows, electronic health record (EHR) usability, peer support, confidential mental health services, work-life integration and reducing barriers to practicing a healthy lifestyle. The review concludes with evidence-based recommendations on establishing an effective physician wellness program.

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Introduction

Physician burnout has been described as a public health crisis.¹ It has been linked to diminished quality and safety, and a compromised patient experience.² Burnout has been correlated to the fact that one in five physicians plan to cut down on clinical work or leave medicine altogether,³ thereby worsening physician shortages and reducing access to care.

From the ^aYale School of Medicine, Yale New Haven Health, 20 York Street, New Haven, CT 06510, United States; ^bMedstar Health, Georgetown University School of Medicine, Washington, DC, United States; ^cChristiana Care Health System, Sidney Kimmel Medical College at Thomas Jefferson University, Wilmington, DE, United States; ^dUniversity of Wisconsin School of Medicine and Public Health, Madison, WI, United States; ^eUniversity of New Mexico School of Medicine, Albuquerque, NM, United States; ^fDepartment of Psychiatry and Behavioral Sciences, Stanford Medicine WellMD Center, Stanford University, Stanford, CA, United States; ^gBoston Medical Center, Boston University School of Medicine, Boston, MA, United States; ^hThe Children's Hospital of Philadelphia, Philadelphia, PA, United States; and ⁱWake Forest Baptist Health, Winston-Salem, NC, United States.

*Corresponding author.

E-mail: kristine.olson@yale.edu

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With the estimated cost of turnover of \$500K-\$1M dollars per physician lost, burnout can have a profound financial impact on healthcare organizations.^{4,5} Burnout also exacts a personal toll on physicians, placing them at increased risk for depression and suicidal ideation.⁶⁻¹⁰ While the percentage of American physicians experiencing burnout has decreased from 54.4% to 43.9% on the latest triennial survey using the Maslach Burnout Inventory, indicating that improvement is possible, it is still 1.6x that of the general population and the rate of depression had increased, suggesting aggressive interventions are still required.¹¹

The literature suggests that physician burnout is an occupational hazard that requires a systems approach. Individuals enter the profession with a more favorable self-assessment of their well-being than their peers, then experience a rise in burnout and depression once exposed to professional life.^{12,13} It follows that systematic reviews and meta-analyses reveal that organization-based interventions are more effective at reducing burnout than individual-based interventions.^{14,15} For the first time in American history, more physicians are employed by hospitals than are in private practice,¹⁶⁻¹⁸

which puts an increasing onus on organizations to prevent physician burnout and promote well-being. Data suggests that by engaging physicians' perspectives in system change, organizations and practices can improve professional fulfillment and reduce burnout while improving organizational performance as measured by patient experience, quality, and cost.^{19–23}

The model for physician professional fulfillment developed at Stanford offers a blueprint for designing organizational interventions to improve physician well-being. This model divides professional fulfillment into three domains: culture of well-being, workplace efficiency, and personal resilience.²⁴ A culture of well-being involves the relationships physicians need to effectively collaborate, communicate, and coordinate patient care. These relationships affect how physicians feel and function at work. Where a culture of well-being has been cultivated, physicians share a common mission with their organizational leaders; they feel valued, empowered, and engaged by their immediate supervisors; they feel they are part of an effective clinical team; they experience a sense of belonging, collegiality and community; and they feel they are making a contribution to something meaningful and larger than themselves. They feel the workplace is functioning efficiently in service to their professional responsibilities to provide the highest quality care for patients.

To promote workplace efficiency, the clinical and administrative workload should be supported by sufficient resources to maintain quality, productivity, and work-life balance.

Organizational support for work-life integration and personal resilience allows for the self-care and rejuvenation required for peak performance and the ability to manage and bounce back from adversity; it also allows physicians to “practice what they preach” — to be exemplars of the healthy habits that they recommend to patients. A comprehensive organizational approach to well-being would attend to all of these elements.

The well-being of frontline physicians is fundamental to the health care mission and demonstrates a good return on investment.^{4,25} This consensus review by leaders in the field across multiple institutions uses the Stanford framework to present strategies and tactics that healthcare organizations can use to reduce burnout and promote professional fulfillment (See [Table 1](#)).

Building an organizational culture that supports physician well-being

Leadership development

Leaders inspire and orchestrate the mission, vision, and values of an organization. The leaders with high satisfaction scores from physicians' appeal to their intrinsic motivation to nurture the patient relationship and master complex problem-solving to produce high quality care.^{26–28} Survey assessments of physicians' sense of value-alignment with leadership and the organization's fidelity to the stated mission and values can help determine if the relationship with leadership is in need of improvement.^{29,30} Leadership dyads of physicians and administrators, or triads of physicians, nurses, and administrators who share rather than divide workstreams, are examples of leadership structures that facilitate better alignment between stakeholders.^{19,20,31} Research suggests that communication from leadership aimed at improving value-alignment with frontline physicians can improve well-being.^{32,33}

In the review “Leadership by design”, Swensen and colleagues advocate a blend of two leadership styles: transformational leadership and servant leadership,³⁴

both of which have a demonstrated ability to improve physician engagement, satisfaction, and commitment.^{35,36} The transformational leadership qualities most correlated with their physicians' job satisfaction were “individualized considerations” (seeking to know their aspirations, developing their abilities,

and engaging their perspectives), “idealized attributes and behaviors” (providing a sense of mission greater than self-interest, instilling pride, and building respect) and “intellectual stimulation” (questioning assumptions and seeking differing perspectives).³⁵ Transformational leaders are primarily focused on the success of the organization. Whereas, servant leaders feel compelled to serve with humility and empathy to create a community of autonomous self-actualizing people in stewardship of the organization.^{35,36} Both styles honor “individualized considerations” and seek to know the aspirations, develop the abilities, and engage the perspectives of their constituents. Swensen and colleagues report that organizational cultures that naturally facilitate transformational and servant leadership styles are

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TABLE 1. Organizational strategies and tactics to improve physician well-being

Domain	Strategy	Tactics
Culture of wellness	Leadership development	- Select, assess, develop leaders who demonstrate the twelve leadership traits associated with physician well-being (engaging, empowering, developing, valuing) and Transformational, Servant, or Collaborative Leadership styles^{34–36,38} - Egalitarian leadership selection process³⁴ - Fidelity to mission, vision, values³⁰ - Appeal to intrinsic motivations^{26–28} - Communicate for value-alignment^{32,33} - Employ leadership structures that include physicians^{19,20,31} - Participative decision-making, including the perspectives of frontline physicians^{19,20,31,37}
	Control and autonomy	- “Job-crafting” to allowing physicians to shape their jobs to their needs and preferences^{47,48} - Accommodate time for the professional activities most meaningful to physicians (~20%).^{33,39,40}
	Teamwork	- Design team-based care models that allow all team members to function effectively at the top of their licenses in the delivery of care^{19,20,31,52–55} - Accommodate “share the care” for team documentation, shared in-baskets, non-physician assist with order entry, protocolled and templated encounters⁵⁴ - Develop teams (willingness, mutual support, shared performance, clear goals, clear roles and abilities, situational awareness, safe to speak up, conflict resolution without retribution or politics)^{34,51} - Adequate staffing to manage the workload, absences and turnover^{57,58}
	Collegiality and community	- Gather and reflect on physicians’ work-life experiences, preferably in protected time slots during the work day. Examples include: - Balint groups and Schwartz rounds^{63–65} - Brief 15-minute resilience exercises with multi-disciplinary teams near their work-unit⁶² - Meals together with a brief facilitated discussion⁶¹ - Physician lounges^{59,60}
	Appreciation	- Give and receive appreciation^{60,67} - Recognize “above-and-beyond” physician contributions to the organization with meaningful rewards or services that ease the workload or work-life integration⁶⁸
	Equity, diversity, and inclusion	- Align climate (beliefs and attitudes) with culture (policies)⁷¹ - Make it an organizational imperative (avoid relegating the organizational responsibility to those affected)^{71,73–76} - Establish goals and procedures to reduce the impact of implicit bias and to achieve EDI.^{71,75} - Normalize diversity^{71,75} - Support physician parents (ex. lactation facilities, on-site child care)^{77–81}
		- Improve EHR usability and interoperability^{91–93,102} - Regarding the addition of new EHR tasks: refrain, evaluate impact, regularly review, reduce, eliminate^{91–93} - When possible, EHR tasks should be simplified, automated, shared.^{91–93} - Allow interprofessional sharing of EHR work with other non-physician team members.^{54,102} - Real or virtual scribes, dictation, to mitigate the documentation burden^{103–106} - EHR training and support to optimize use of tools and efficiencies^{110–119} - Provide adequate time during the workday for required documentation^{84–86}
Efficiency of practice	Electronic health record (EHR)	- Engage frontline physician in redesign of the clinical structures and processes.^{19,20,31–34,120–122} - Engage frontline physicians in clinical redesign teams to improve workplace efficiency and quality of care^{19,20,31,33,34,120–124} - Assess and improve structures and resources,^{33,45–48,57–58} processes,^{120–124} administrative complexity,^{82–119} and teamwork.^{51,52–56} - Seek solutions at all levels: individuals, work-units, departments, the organization, policy and law³⁰
	Workplace efficiency	- Design effective team-based care models^{19,20,31,52–55}
Personal resilience	Supporting healthy life-style behaviors	- Role-modeling of resilient healthy habits by leaders and physicians¹²⁹ - Make healthy choices readily available (hydration and nutritious food, exercise facilities, sleep pods, mindfulness practice, stand-up desks, etc.)^{129,132–135} - Reduce or eliminate the expectation that work be done after-hours (e.g. EHR tasks, emails, or other compliance tasks)⁹⁸
	Peer support	- Develop a confidential proactive peer support program^{141–144} - Secure confidential mental health services for distressed physicians¹³⁷

patient-centered and team-based, with collaborative leadership structures and an egalitarian leader selection process.³⁴ In healthcare, there is a trend toward collaborative and distributive leadership styles.^{19,20,31} It has been shown that physicians are more satisfied with a participatory team-based culture which allows for physician participation in decision-making, and least satisfied with a rigid hierarchical bureaucratic culture.³⁷

Twelve leadership traits related to engaging, empowering, developing, and valuing physicians have been shown to account for 47% of the variance in physicians' satisfaction with the organization, and 11% of the variance in burnout.³⁸ In this study, each 1-point increase on the 12-point leadership scale reduced burnout 3.3% and increased satisfaction with the supervisor by 9%.³⁸ Organizations may opt to select leaders who demonstrate leadership traits that are associated with promoting physician wellbeing. These traits may be assessed with the annual physician wellness survey (described below), integrated into the leaders' annual review, and supported by leadership development programs (literature, didactics, coaching, leader peer groups, etc.). Physician leaders have the opportunity to support physicians' professional fulfillment by inquiring about physicians' unique strengths and intrinsic motivations, with the goal of engaging them in collaborative work that is meaningful to them.³⁹ Allotting 20% time for work that is deemed most personally and professionally meaningful has been shown to reduce burnout.^{33,39,40}

Engaging physicians' talents produces more high-value patient programs.^{19,20,31}

Control and autonomy

Control and autonomy over work (clinical decision-making and practice management) is one of the most highly correlated parameters to physician

burnout.⁴¹ Loss of control has been linked to symptoms of burnout, cardiovascular disease, and poor job performance.^{42–44} In a Mini-Z assessment of seven workplace stressors, for example, control over workload was the most highly associated dimension with physician burnout.²⁹ According to the Jobs Demands-Resource Theory (JD-R), job demands are associated with physiological and psychological costs that can lead to exhaustion if not balanced with sufficient resources to manage

them. When resources are inadequate to manage the demands, it leads to withdrawal and depersonalization as a mechanism to conserve depleted resources, which can in turn lead to burnout.⁴⁵ Well-being and engagement in work has been most associated with resource-rich environments. Autonomy is considered a resource for managing work demands.^{45–48}

To prevent burnout and retain physicians, organizations may “standardize, but customize”,³³ though “job crafting”, which allows individuals to shape their jobs to their needs, abilities, and preferences, and has been shown to improve well-being and increase overall performance.^{47,48} Some considerations for control over workload and schedule include options for (1) part-time work (with a mechanism to access benefits, malpractice rates, and amenities such as parking); (2) job-sharing, panel-sharing, schedule-sharing, or task-sharing; (3) compressed work schedules (fewer, longer shifts) or more frequent shorter shifts; (4) telecommuting and the option to work evenings, weekends, and non-traditional hours; (5) flex time including opportunities to work extra hours in exchange for extended vacation (time banking); (6) advanced planning and cross-coverage to minimize impact of unexpected absences; and (7) opportunities to shift the workload and pace of work to support longevity. The option to reduce work-effort to protect against burnout and rejuvenate when necessary has potential to retain physicians in the work-force, while the aim is to create sustainable work models that maintain their engagement in full-time work. Flexible work models

also help accommodate a more diverse workforce.^{49,50} Care should be taken to honor the boundaries stipulated by these arrangements, such that it does not result in the equivalent of a full-time workload for partial compensation or otherwise damage one's opportunities for career advancement in the future.

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Teamwork

Teamwork is critical in healthcare, and it plays a key role in work culture, workplace efficiency, and personal resiliency; teamwork is essential for optimal communication, coordination, and collaboration. Lack of teamwork is associated with errors, burnout, and intention to leave the profession.^{29,51} Tawfik et al. review how characteristics of teamwork, resiliency, and burnout

interplay to create an environment for quality care, thus making a strong argument for addressing each one.⁵¹

Teamwork requires strong relationships and a willingness to cooperate toward a common goal. Common elements of teamwork may include mutual commitment toward the realization of clear goals without confusion, an understanding of team members' roles and abilities, shared performance and accountability, situational awareness, trust and psychological safety to speak up, conflict resolution without retribution, and minimal politics.^{34,51} As organizations grow larger and streamline, the roles and rules tend to become standardized and more rigid, which potentially threatens these fluid cooperative relationships.²⁷ Organizations may preempt this and adopt structures that facilitate team relationships.

Some organizations are using teamlets of allied health professionals to “share the care” for patients on their panel, thus improving professional fulfillment.^{19,20,31,52–54} One example of team-based care (TBC) includes increasing the ratio of medical assistants (MA) per physician and having them remain with their patient throughout the patients' encounter from rooming to preparing discharge instructions. In this model, the MA collects patient data, participates as a scribe for the physician, provides coaching to patients, assists with care coordination and acts as a second point of contact for the patient. This model reduces physician burnout, improves satisfaction for the patient and medical assistant, saves time and is cost effective.^{52,53,55} Another example is the NP Anchor Model in which nurse practitioners (NPs) join a team of 3–4 part-time physicians. Their combined patient panel may be equivalent to 1.5 physicians' full-time work (ex. 2025 patients per year); yet instead of maintaining their own patient panels, the NP anchors the team and has dedicated administrative time to provide follow-up, outreach, and coordinate care for the teams' medically and socially complex patients. This model improved physicians' job satisfaction and increased patient access to care.⁵⁶ The “share the care” approach may also be facilitated by team documentation, shared in-basket, protocolled and templated encounters, standing orders for preventive and chronic care, non-physician order entry, and pre-visit planning at the end of each visit.⁵⁴ Implementing a team-based care approach may require a review of state or organizational policies on scope-of-practice for each team member. To be effective, these interventions require adequate and stable staffing which

itself has been linked to reduced burnout, improved satisfaction, and decreased turnover.^{57,58} To that end, care should be taken to “share the care” rather than shift it from physicians to other team members without providing adequate time and resources.

Collegiality and community

Collegiality and community may be adversely affected by the time spent on the EHR and disappearance of group meeting spaces such as physician lounges.⁵⁹ While touring the country, the U.S. Surgeon General observed that isolation and loneliness may contribute to physician burnout, as seen with other professionals.⁶⁰ Murthy notes that humans often spend more time with the people at work than their own families, and that strong social connections can improve engagement, fulfillment, and productivity, while improving trust and teamwork, and reducing the risk of burnout.⁶⁰ One study found that paid protected time for 19 biweekly meals with fellow physicians to reflect and share experiences significantly improved engagement (5.3% versus 0.5%) and reduced depersonalization (15.5% versus 0.8%), and effects were sustained at a year.⁶¹ Similarly, another healthcare system reported lower burnout, reduced staff turnover and unplanned paid time off, and improved teamwork and perceptions of adequate staffing after they delivered 25 h of empirically validated psychological interventions to improve resilience for more than 300 members of the multidisciplinary team in 5–10 min increments near the medical intensive care unit over 8 months; the interventions encouraged open information sharing and an esprit d'corps.⁶²

Several other mechanisms for community building and shared reflection have become widespread. Schwartz Center Rounds are now widely offered at organizations to bring frontline clinicians together to reflect on the emotional impact of providing patient care.⁶³ Balint Groups provide an opportunity for small groups of physicians to meet and debrief with colleagues about work-life.^{64,65} Teaching rounds can be another opportunity to reflect and connect around aspects of the physician experience. While more rigorous studies are needed, there is evidence to suggest such activities reduce stress, improve teamwork and compassionate care, and improve job satisfaction.^{63–65} Routine social events are another

way to create a sense of community and belonging amongst the medical staff.

Appreciation

Appreciation is an effective way to connect and feel professionally satisfied and motivated at work.^{60,66} In his review “Connecting at Work”, Dr. Murthy describes a strong connection at work as one in which the individual feels genuinely valued and cared for, shares experiences, and gives and receives help and appreciation, such that they feel understood and trust one another.⁶⁰ According to Chapman and White,⁶⁷ unlike recognition which is described as top-down reinforcement for a behavior, appreciation is egalitarian and conveys that the individual is valued; appreciation can be demonstrated with words, time and attention, service, a meaningful gift, or an appropriate physical touch (fist bump, pat on the back, high five, handshake). One study had physicians log their extra work hours in service to the success of the team and recognized them with meaningful rewards and services that lessened the workload or eased work-life integration, showing it could improve their sense of well-being.⁶⁸ Appreciation can come from leadership, colleagues, patients, families, and others at work.

Equity, diversity, and inclusion

Equity, diversity, and inclusion (EDI) allows health-care organizations to mobilize and maximize the full potential of its physician work force, while improving the well-being of women and under-represented minorities in medicine (URMM).^{69–72} Left unchecked, explicit and implicit biases can pressure individuals to conceal their identity or to otherwise conform to dominant norms in order to fit in, advance, or avoid harassment or hostility.⁷¹ Consequently, the individual may feel isolated, invisible, excluded, and stressed.⁷³ Furthermore, the pressure to conceal one’s identity perpetuates the “hidden curriculum”, which impresses upon future generations of physicians that certain characteristics possessed by certain groups are not acceptable.^{71,74,75} It can

put individuals in the “double bind” in which the expectation to conform is in conflict with what is expected to succeed (ex. “feminine niceness”). Additionally, those affected may also be expected to work harder to prove their worth; they may be called upon to remedy the structural challenges they face — a phenomenon called “the minority tax”, which also diverts precious energy from other professional pursuits.^{71,73}

Remedying inequality, discrimination, and exclusion should be an organizational imperative because it undermines well-being and also devalues half the work-force and adversely affects medical decision-making and the patient experience.^{71,74,76}

Consistent with the expectation that patients feel welcome entering a healthcare facility, physicians themselves should also feel comfortable at work

regardless of gender, race, ethnicity, religion, sexual orientation, physical abilities, weight or other personal characteristics.

A culture of wellness would include a climate (beliefs and attitudes) that reflect the organization’s stated policy positions on EDI.⁷¹ In healthcare, demands are high, resources low, and decisions need to be made quickly, leaving health care professionals vulnerable to relying on implicit bias as a cognitive shortcut for rapid assessments, which may inadvertently bypass women and URMMs for professional advancement, hindering their success.⁷⁵ For these reasons, organizations may need to establish goals and procedures to reduce the impact of implicit bias in order to achieve EDI. Normalizing diversity can reduce subconscious biases otherwise found in medical professionals at levels similar to the general population. Leaders can set an example by recognizing and celebrating the contributions of women and URMMs. Organizations may demonstrate commitment to EDI by taking measures to ensure unbiased evaluation of individuals for recruitment, selection, compensation, recommendations, promotions, and leadership. One approach may be blinded evaluations of candidates seeking advancement opportunities, another may be to define what EDI looks like and work toward it explicitly.^{71,75}

Work-life integration can pose additional challenges for physician parents, which disproportionately affects

female physicians. Women were more likely to experience career interruption for planned child-care.⁷⁷ Once returned to work, less than a quarter of physician trainees reported access to on-site child care or child-care subsidies or allowances for sick-child care⁷⁸; 44% of surgical trainees reported limited access to lactation facilities.⁷⁹ Estimates from the American Time Use Survey reveal that, among married physicians, female physicians with children spent over 100 more minutes per day on childcare and household activities when compared to their male counterparts, even when adjusting for work hours.⁸⁰ These findings may help explain a proportion of why female physicians have a higher incidence of burnout than male physicians.⁸¹ Better workplace support for physician parents may attenuate these stressors.

Building a “manageable cockpit”: supporting workplace efficiency

Complexity can pose risks and increase waste for ever larger healthcare organizations. Physicians often describe their work atmosphere as hectic, chaotic and inefficient—characteristics tied to errors and burnout.^{82,83} Physicians spend an estimated 50% of their workday entering data into the EHR, with an additional 30 h per month spent after-hours on nights and weekends.^{84–86} An average ER shift requires 4000 “clicks” on the EHR,⁸⁷ and an average primary care doctor has 77 in-basket messages per day.⁸⁸ A high-density “in-basket” runs the risk of missing 30% of abnormal patient results and is associated with higher rates of burnout.⁸⁹ Physicians report spending an average of 17 h per week on obtaining prior-authorizations.⁹⁰ Administrative burdens can be lessened if key stakeholders agree to refrain from adding new tasks, evaluate the impact of proposed additions, and regularly review, reduce, and eliminate these tasks; when that is not possible, tasks should be simplified, automated, or shared.^{91–93} Sinsky et al. argue that, like airline pilots, physicians need a “manageable cockpit” free of information overload, distractions, and a cognitive workload prone to errors.⁹⁴

The electronic health record (EHR)

The EHR has been identified as a major source of burnout and dissatisfaction.^{95–98} The EHR directs physicians’ attention toward data entry, clerical tasks, and away from

face-to-face interactions with patients.^{88,95,99} The administrative complexity contributes to the expansion of after-hours work,^{84,85} physician fatigue, and burnout.^{100,101}

There are many potential strategies to remedy stressors related to administrative complexity and the EHR, including regularly evaluating the impact of the EHR on physicians, eliminating redundancies and simplifying EHR workflows, building systems that allow for interprofessional sharing of EHR work, and providing non-clinical assistance with administrative tasks. Sharing EHR tasks with other members of the health care team can improve physician satisfaction.¹⁰² The adoption of voice recognition dictation or a scribe may be a particularly valuable approach. The role of scribes varies between institutions but involves an additional staff member who helps with documentation and clerical tasks. Several studies document the benefits of scribes on work efficiency and provider satisfaction,^{103–106} showing improved satisfaction with charting time and face-time with patients,¹⁰⁶ and improved work-life balance and burnout.¹⁰⁴

Another intervention that can improve physicians’ EHR-related satisfaction is the elimination of waste in data-entry and documentation processes. For example, implementing a “tap and go” technology for rapid EHR sign-in saved 56 h per physician per year.¹⁰⁷ Other reports demonstrate how “clicks” can be reduced by auto-filling or eliminating unnecessary data fields¹⁰⁸ or developing simple ways to compile patient data.¹⁰⁹ Some organizations are creating closed-loop systems to follow through on abnormal results. Other efforts to reduce waste—such as improving data exchange across different institutions and EHR systems—require additional regulation or incentives to EHR vendors to improve interoperability.¹⁰² Large organizations with the most robust IT and EHRs may generate the most administrative burden, resulting in lower physician satisfaction.⁹³ More funded research is needed to better understand the impact of administrative tasks on physician well-being, patient outcomes, and health care costs.^{13,14}

Physicians also benefit from EHR training and support to ensure that they are able to take advantage of every available tool to make charting more efficient.^{110–112} Cross-sectional surveys show links between better institutional support for EHR training and favorable perceptions of the EHR.^{113,114} While research about the best type of EHR training is limited,¹¹⁵ several studies using physician-led training to improve the proficiency of experienced EHR users reported positive results. Two

pre/post evaluations of a 3-day intensive training found improvements in EHR proficiency, job satisfaction, and work-life balance.^{116,117} To that end, time should be allotted during work-hours for EHR training. Two other studies using one-on-one training found improvements in EHR satisfaction, self-reported efficiency,¹¹⁸ and anecdotal reductions in EHR time.¹¹⁹ However, none of these studies directly examined whether these interventions resulted in reduced burnout among physicians.

Inefficiency in the workplace

Inefficiency in the workplace leads to a hectic-chaotic atmosphere with irregular pace and flow of work due to inefficient processes and insufficient resources to manage the workload. Consistent with the Jobs Demand Resource Theory (JD-R), the first step in improving an inefficient workplace may be to assess workplace function: resources (ex. staffing and rooming, and power to improve the workplace), process (ex. timing and flow), back-office support for administrative complexity (ex. interruptions for pre-approvals/denials, compliance and bureaucratic hurdles, EHR alarms and alerts, time for documentation, etc.), and quality of teamwork. Solutions to identified problems can be based in empowering individuals (ex. proficiency with the EHR), optimizing work-unit functioning (ex. workflow mapping, and “share the care” models as previously discussed), using organization-level rapid-cycle improvement teams to do outcomes-driven clinical redesign, streamlining IT processes (ex. close-loop systems, auto-fill domain fields), and reviewing laws and policies to ensure that they allow for top-of-license workflows (ex. policies that prohibit team-based documentation or order entry). All approaches incorporate the perspective of the frontline physicians – the end-users for human-centered design.^{19,20,33,34,120}

Many organizations now train frontline physicians in the techniques for clinical redesign and innovation work.^{19,20,31,121,122} Participating in quality improvement to improve workflow can reduce physician

burnout.¹²⁰ Clinical redesign engages and empowers the medical staff in system improvement for long-lasting sustainable solutions, teamwork, value-alignment with leadership, higher quality care at lower costs, alleviated cynicism and reduced burnout. Leaders can provide psychological safety so that innovators are not fearful of proposing ideas and exhibiting control in clinical re-design.^{123,124}

Organizational support for individual resilience

A resilient lifestyle prioritizes self-care to maintain physicians' cognitive and physical performance.

A resilient lifestyle prioritizes self-care to maintain physicians' cognitive and physical performance.

The issue of work-life balance has been increasingly recognized as a major contributor to physician distress. While the general

population had higher satisfaction with work-life balance and experienced an increase in overall satisfaction with work-life balance between 2011 and 2014, physicians had worse work-life balance and experienced a worsening of 7.6% in the same time period.¹²⁵ In a survey comparing American physicians and the general public, it was revealed that on average physicians works 12 h more per week than the general population; 38.9% of physicians work over 60 h per week, compared to 6.2% of the general population.¹¹

Outside of direct work, physicians still face work-related administrative burdens such as state, federal, and organizational compliance measures, maintenance of certification (MOC), and onboarding. While only a quarter of surveyed physicians felt that MOC activities were relevant to their practice, 81% felt that they posed a burden.¹²⁶ This statistic is particularly troubling in light of estimates that physicians already spend half of every

workday on clerical and EHR-related tasks in the course of routine clinical duties.⁸⁴ Since the EHR has made work possible around the clock, it is more challenging to separate work from home life. Stressors like these may require a coalition of stakeholders who care about physician well-being to advocate for a change at the level of health policy and law.

Since the EHR has made work possible around the clock, it is more challenging to separate work from home life.

Rejuvenation is important to performance. Compared to the general population, the majority of physicians are more aware of the importance of healthy behaviors and engage in these behaviors when possible.^{127,128} Almost half (48%) of physicians in one survey reported using exercise to cope with burnout.^{129,130} However, inadequate time has been identified as the biggest barrier to this strategy.^{129,131} Organizations can support individual well-being by instituting policies that protect against long work hours and heavy workload, allowing employees time to engage in healthy behaviors. Healthcare organizations can facilitate engagement of physicians in healthy behaviors by offering on-site exercise facilities, biking or walking paths close to patient care areas, providing an option for stand-up desks or those with small treadmills, providing private nap rooms or sleep pods, and providing healthy snacks and drinks close to work areas.^{129,132–135} There is evidence that physicians' healthy lifestyle behaviors (sleep, exercise and nutrition) are influenced by the perception of whether or not their immediate supervisor engages in healthy lifestyle behaviors.¹²⁹ Such role modeling may include refraining from sending emails after work-hours or being explicit that responding to emails while off-duty is not expected. Furthermore, physicians who practice healthy habits are more likely to recommend them to their patients.¹³⁶ Role modeling plays an important role in creating a wellness culture.

Supporting physician mental health is critical as physician burnout has been associated with higher rates of suicide, substance use disorder, and broken relationships.¹³⁷ Burnout has also been associated with increased medical errors,⁸³ which can lead to a cycle of self-recrimination accompanied by long-lasting feelings of anxiety, guilt, sadness, shame/embarrassment, and anger.¹³⁸ A punitive culture can exacerbate symptoms and suppress disclosures of an unexpected adverse outcome,¹³⁹ whereas a non-punitive response can lessen the associated psychological, physical, and professional distress.¹⁴⁰ Under such circumstances, physicians prefer to speak to a physician peer.^{141,142} A formal peer-

Rejuvenation is important to performance.

An effective physician wellness program hinges on an enlightened executive team who recognize physician well-being as critical to the success of the organization, and approach the issue with the urgency required.³⁰

support program can facilitate recovery and prevent withdrawal from practice.¹³⁹ Some organizations proactively offer routine confidential peer support for physicians for a wide range of work-life stressors.^{143,144}

Establishing a wellness program

An effective physician wellness program hinges on an enlightened executive team who recognize physician well-being as critical to the success of the organization, and approach the issue with the urgency required.³⁰ Hospital boards with experience leading across industries and charged with identifying and mitigating organizational risks are likely to be supportive in supporting

and crafting a physician wellness program.¹⁴⁵ Organizations may appoint an executive champion, such as a chief wellness officer. This person should possess passion for the work, expertise in the measurement and drivers of professional fulfillment, credibility with key stakeholders and frontline physicians, and experience in change management. The program will require the support of a full-time administrative director, administrative assistant, and perhaps a dedicated statistician/research assistant. Depending on the size of the organization there may be funded positions for directors for each clinical group (ex. physicians, advance practice clinicians, residents, medical students, and leaders at various clinical sites). The budget should reflect the cost of burnout and number served.⁴

The individual serving as chief wellness officer is not solely accountable for physician well-being and should have a clearly defined role to avoid mission creep; the health and professional fulfillment of physicians remains a shared responsibility of the entire organization that requires close collaboration with other key stakeholders (e.g. chief medical officers and deans, chief clinical operating officers, chief medical information officers, head of human resources, chief quality officers, chief patient experience officers, and chief financial officers, etc.).¹⁴⁶ Wellness leads may be selected to represent divisions and departments; the

wellness leads share best practices and facilitate communication, coordination, and collaboration with the executive branch via the chief wellness officer. Websites, news bulletins, monthly seminars on relevant topics, and annual wellness events (ex. retreat, festival, research conference) are commonly used to engage the physician body. Increasingly, there are wellness centers that offer such features as gathering spaces, access to healthy food choices, exercise facilities, and private “reset rooms” for a moment of quiet.¹⁴⁷

The annual well-being survey is used to monitor well-being, identify stressors and guide interventions, and assess effectiveness of interventions within the three domains (culture, workplace efficiency, resiliency).¹⁴⁶ Each work-unit has a unique profile of stressors and surveys can elucidate the prevalence of the stressor and strength of association with well-being metrics. Following initial assessments, interventions such as those discussed above can be selectively deployed to target “hot spots” for maximum impact, with the goal of resolving stressors and improving physician well-being and organizational performance. Because significant gaps remain in the collective understanding of the drivers of burnout and the effectiveness of interventions, robust measurement and reporting can help propel the field forward.^{148,149} Focus groups can generate innovative new approaches. The chief wellness officer serves in an advisory capacity and advocates for organizational support for frontline initiatives and supports research and development for new programs needed to improve physician well-being. With executive support, carefully selected leadership, and appropriate resourcing, organizations will be poised to progress from novice to expert in their journey toward physician well-being.⁴

Conclusion

Given that physician burnout is associated with adverse effects on physicians, patients, staff, and healthcare organizations, physician well-being may be a leading indicator of health system performance. Organizational attention to physician well-being can improve quality of care and the patient experience, increase physician recruitment, retention, and productivity, and mitigate some risks healthcare organizations face as they grow. Thoughtful investment in physician well-being should be a priority for all health-care organizations and efforts to prevent and

address burnout should be evidence-based and outcomes-driven.

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