

A CRISIS IN HEALTH CARE: A CALL TO ACTION ON PHYSICIAN BURNOUT

Partnership with the Massachusetts Medical Society, Massachusetts Health and Hospital Association, Harvard T.H. Chan School of Public Health, and Harvard Global Health Institute



MASSACHUSETTS
Health & Hospital
ASSOCIATION



MASSACHUSETTS
MEDICAL SOCIETY

*Every physician matters,
each patient counts.*



HARVARD
T.H. CHAN
SCHOOL OF PUBLIC HEALTH



HARVARD



Global Health Institute

Authors

Ashish K. Jha, MD, MPH

Director, Harvard Global Health Institute

Senior Associate Dean for Research Translation and Global Strategy

K.T. Li Professor, Dept. of Health Policy and Management, Harvard T.H. Chan School of Public Health

Professor of Medicine, Harvard Medical School

Andrew R. Iliff, MA, JD

Lead Writer and Program Manager, Harvard Global Health Institute

Alain A. Chaoui, MD, FAAFP

President, Massachusetts Medical Society

Steven Defossez, MD, EMHL

Vice President, Clinical Integration, Massachusetts Health and Hospital Association

Maryanne C. Bombaugh, MD, MSc, MBA

President-Elect, Massachusetts Medical Society

Yael R. Miller, MBA

Director, Practice Solutions and Medical Economics
Massachusetts Medical Society

Acknowledgments

Many people contributed to the content of this paper. We would like to thank the following:

Michelle A. Williams, SM, ScD, Dean of the Faculty, Harvard T.H. Chan School of Public Health; the MMS-MHA Joint Task Force on Physician Burnout, which includes the following members:

James K. Wang, MD, Baystate Medical Center; Steven A. Adelman,

MD, Executive Director, Physician Health Services, MMS; Karim Awad, MD, Chief, Sleep Medicine, Medical Director,

Clinical Affairs, Atrius Health; Bruce K. Bertrand, MD, Past Chief Medical Officer, Heywood Hospital; John W.

Burress, MD, MPH, OccMed Care and Injury Consulting, LLC; Andrew J. Chandler, MD, MHSA, Medical Director

for Patient Experience and Staff Satisfaction, Tufts Medical Center Community Care; Jatin K. Dave, MD, MPH, Chief

Medical Officer, New England Quality Care Alliance; Marcela G. Del Carmen, MD, MPH, Chief Medical Officer,

Massachusetts General Physicians Organization; Travis Hallett, MD Candidate, Boston University; Tonya M.

Hongsermeier, MD, MBA, Chief Medical Informatics Officer, Lahey Health; Susannah G. Rowe, MD, MPH, Associate

Chief Medical Officer for Wellness and Professional Vitality, Boston Medical Center and Boston University Medical Group;

Khuloud Shukha, MD, MBA Candidate; Barbara S. Spivak, MD, President, Mount Auburn Cambridge IPA; Patricia M.

Noga, PhD, RN, NEA-BC, Vice President, Clinical Affairs, MHA; Carly Redmond, MMS Staff; Debbie Ryan, Senior

Administrative Assistant and Project Coordinator, MHA; Cheena Yadav, MMS Staff; the Task Force on Electronic

Health Records Interoperability and Usability: Hugh Taylor, MD, Chair; and this outside party: Gary Price, MD, President,

Physicians Foundation.

About the Massachusetts Medical Society

The Massachusetts Medical Society (MMS) is the state-wide professional association for physicians and medical students, supporting 25,000 members. The MMS is dedicated to educating and advocating for the physicians and patients of Massachusetts both locally and nationally. As a voice of leadership in health care, the MMS provides physician and patient perspectives to influence health-related legislation at both state and federal levels, works in support of public health, provides expert advice on physician practice management, and addresses issues of physician well-being.

About the Massachusetts Health and Hospital Association

The Massachusetts Health and Hospital Association (MHA) was founded in 1936, and its members include 71 licensed member hospitals, many of which are organized within 29 member health systems, as well as interested individuals and other healthcare stakeholders. MHA serves as the unified voice for Massachusetts hospitals on Beacon Hill and Capitol Hill. Through leadership in public advocacy, education, and information, MHA represents and advocates for the collective interests of its members and supports their efforts to provide high-quality, cost-effective, and accessible care during an era of unprecedented change.

About the Harvard T.H. Chan School of Public Health

The Harvard T.H. Chan School of Public Health brings together dedicated experts from many disciplines to educate new generations of global health leaders and produce powerful ideas that improve the lives and health of people everywhere. The school works as a community of leading scientists, educators, and students to take innovative ideas from the laboratory to people's lives, not only making scientific breakthroughs, but also working to change individual behaviors, public policies, and health care practices.

About the Harvard Global Health Institute

The Harvard Global Health Institute (HGHI) is a University-wide entity that facilitates multidisciplinary, collaborative approaches to tackling global health challenges that are bigger than any one school or discipline. Connecting stakeholders across disciplines, geographies, and sectors, HGHI aims to encourage the exchange of new ideas and projects, enhance the University's capacity to conduct and disseminate research, and support creative, collaborative educational efforts in global health.

Introduction

Physician burnout — a condition in which physicians lose satisfaction and a sense of efficacy in their work — has become widespread in our profession, driven by rapid changes in health care and our professional environment. As physicians, we have seen how frustrating computer interfaces have crowded out engagement with patients, undermining patient encounters for both physicians and patients. We felt how long work days become still longer as physicians struggle to keep up with a soaring burden of administrative tasks. We know how the very goals of patient care can be distorted by the demands of documentation or quality measures.

Driven by experience and the mountainous body of evidence on the causes and impacts of physician burnout, this report is a call to action to begin to turn the tide before the consequences grow still more severe.

This report is the result of a collaboration between the Massachusetts Medical Society, the Massachusetts Health and Hospital Association, the Harvard T.H. Chan School of Public Health, and the Harvard Global Health Institute. The goal of this report is to inform and enable physicians and health care leaders to assess the magnitude of the challenge presented by physician burnout in their work and organizations, and to take appropriate measures to address the challenge. The recommendations presented in this report are not exhaustive — they represent short-, medium-, and long-term interventions with the potential for significant impact as standalone interventions.

We believe that physician burnout is a public health crisis, an assessment that has been echoed by others in both major medical journals and in the lay press. A primary impact of burnout is on physicians' mental health, but it is clear that one can't have a high performing health care system if physicians working within it are not well. Therefore, the true impact of burnout is the impact it will have on the health and well-being of the American public.

In particular, this report emphasizes the structural dimension of this crisis. Too many physicians find that the day-to-day demands of their profession are at odds with their professional commitment to healing and providing care. The demoralizing misalignment of the physician's values and his or her ability to meet his or her patient's needs, due to conditions beyond the physician's control, such as poverty, lack of insurance authorization, or unreasonably short appointment times, has been termed "moral injury."¹ It is not that physicians are inadequately "tough enough" to undertake their work, but that the demands of their work too often diverge from and indeed contradict their mission to provide high-quality care.

While individual physicians can take steps to better cope with the stress of "moral injury" and hold at bay the symptoms of burnout, meaningful steps to address the crisis and its root causes must be taken at a systemic and institutional level.

For this reason, the fundamental challenge issued in this report is to health care institutions of all sizes to take action on physician burnout. The three recommendations advanced here should all be implemented as a matter of urgency and will yield benefits in the short, medium, and long term.

Institutions should immediately improve access to and expand health services for physicians, including mental health services. Physicians should be encouraged to take advantage of such services in order to prevent and, as needed, manage the symptoms of burnout.

In the medium term, addressing the burnout crisis will require significant changes to the usability of electronic health records (EHRs), including reform of certification standards by the federal government; improved interoperability; the use of application programming interfaces (APIs) by vendors; dramatically increased physician engagement in the design, implementation, and customization of EHRs; and an ongoing commitment to reducing the burden of documentation and measurement placed on physicians by payers and health care organizations.

Finally, to successfully address the crisis in the long term, the appointment of executive-level chief wellness officers (CWOs) is essential. CWOs must be tasked with studying and assessing physician burnout at their institutions, and with consulting physicians to design, implement, and continually improve interventions to reduce burnout.

Data

This report draws on the extensive and growing literature on physician burnout and its consequences. In addition, the report utilizes results of an informal survey of Massachusetts physicians at different stages of their careers — from medical students to senior practitioners — to better understand the wide range of concerns and contributing factors.

This report provides a starting point for CWOs and their professional partners by synthesizing the growing body of scholarly and policy literature on physician burnout and highlighting how different interventions will serve the needs of physicians at different points in their careers.

How Did We Get Here? (Etiology)

The beginning of the ongoing crisis of physician burnout can be traced to several events. While some may point to the passage of the Affordable Care Act (ACA) in 2010 — the most significant single change in the landscape of American health care — the roots of the crisis likely precede the ACA.² For example, the “meaningful use” of electronic health records (EHRs), which transformed the practice of many physicians, was mandated as part of the 2009 American Reinvestment and Recovery Act. Looking further back, the 1999 publication of the Institute of Medicine’s “To Err is Human” report, highlighting the prevalence of medical errors, brought new attention to quality improvement and the value of physician reporting and accountability.

Taking stock of this history, Donald Berwick, MD, a Massachusetts physician and a leader in the health care quality movement, describes the “first era of medicine” during which “society conceded to the medical profession a privilege most other work groups do not get: the authority to judge the quality of its own work.”³ This era came to an end as the unexplained variation in physician practice styles, high rates of medical injury from errors in care, and social and racial disparities prevalent in medicine came to light.

As a result, Berwick says, the second and current era is dominated by “rewards, punishments, and pay for performance.”³ The result is a “collision of norms” between a historical investment in physician professional autonomy and a new era of measurement and accountability targeting quality, errors, inequities, and soaring costs. This conflict lies at the root of the growing crisis of physician burnout.

This crisis has not gone unrecognized. In 2016, 10 CEOs of major health systems declared physician burnout a public health crisis in *Health Affairs*. The authors identified 11 actions to improve health systems to address burnout.⁴ In 2017, the Institute for Healthcare Improvement (IHI), recognizing the rising epidemic of work force burnout, developed and disseminated its white paper titled “Framework for Improving Joy in Work.”⁵ In January 2017, the National Academy of Medicine created the “Action Collaborative on Clinician Well-being and Resilience” in “response to the burgeoning body of evidence that burnout is endemic and affects patient outcomes.”⁶

Yet the crisis continues to worsen.

How Bad Is It? (Diagnosis)

Burnout is a complex phenomenon that can manifest in a range of ways, and whose full impact can only be understood with reference to its impact on both physicians and the patients they serve. The Maslach Burnout Index

(MBI) — the most widely used and validated survey tool — assesses three distinct components: emotional exhaustion, depersonalization, and personal accomplishment/experience of ineffectiveness.⁷

The prevalence of physician burnout has reached critical levels. Recent evidence indicates that nearly half of all physicians experience burnout in some form.^{8,9} And it appears to be getting worse. The 2018 Survey of America’s Physicians Practice Patterns and Perspectives, conducted by Merritt Hawkins on behalf of the Physicians Foundation, finds that 78% of surveyed physicians experience feelings of professional burnout at least sometimes, an increase of 4% from the 2016 survey.¹⁰

We must continue to document the prevalence of physician burnout and take steps to standardize and benchmark surveys in order to facilitate comparison and tracking of trends, as well as to better understand variation by specialty, gender, and stage of career.¹¹ But the consequences of this prevalence of burnout are clear: if we do not immediately take effective steps to reduce burnout, not only will physicians’ work experience continue to worsen, but also the negative consequences for health care provision across the board will be severe.

Burnout has a demonstrable impact on physician work hours and professional exit. Every one-point increase in burnout (on a seven-point scale) is associated with a 30–40% increase in the likelihood that physicians will reduce their work hours in the next two years.¹² Overall, burnout contributes to a 1% reduction in physicians’ professional work effort. This reduction roughly equates to losing the graduates of seven medical schools annually — before accounting for other outcomes of burnout such as early retirement or leaving the profession altogether.¹²

The US Department of Health and Human Services (HHS) has predicted a shortage of up to 90,000 physicians by the year 2025. One of the underlying drivers of this shortage will be the loss of practicing clinicians due to burnout.¹³ Efforts to replace lost physicians come at a steep cost to employers. One estimate of the lost revenue per full-time-equivalent physician is \$990,000, and the cost of recruiting and replacing a physician can range from \$500,000 to \$1,000,000.¹⁴

Nor is the impact of burnout limited to physicians and their employers. Patients do not like being cared for by physicians who are experiencing symptoms of burnout, which is significantly correlated with reduced patient satisfaction in the primary care context.¹⁵ Evidence further suggests that burnout is associated with increasing medical errors.¹⁶

The true consequences of physician burnout and the public health crisis it entails begin to come into focus not only for physicians and health care organizations, but for patients, too. Recognizing this, some health care leaders have called for expanding the “Triple Aim” of health care (patient experience, population health, and cost reduction) proposed by Berwick et al. a decade ago to a “Quadruple Aim,” adding the goal of improving the work life of health care providers.¹⁷ We cannot hope to achieve any component of the Triple Aim without turning the tide of physician burnout.

What Can We Do? (Treatment)

Addressing the burnout crisis will require action by all stakeholders across a range of domains impacting physician practice. This report highlights three concrete steps that have the potential to yield significant improvements in the experience of physician practice starting with training and running throughout one’s medical career. These proposals address three different structures that shape physician experience and practice, and offer the possibility of relatively rapid and significant change and continued improvement in the medium and long term.

As related in the discussion on the etiology and diagnosis of the physician burnout crisis, the primary drivers are structural features of current medical practice. Only structural solutions — those that better align the work of physicians with their mission — will have significant and durable impact.

Some have proposed “physician wellness” or “self-care” strategies — such as mindfulness or yoga — as a response to burnout and presented some evidence of limited success with such approaches.¹⁸ However, there are both practical and principled concerns to this approach. Practically, such approaches are likely to have limited impact as physicians typically do not have time to consistently fit yoga and similar coping strategies into their routine. Devoting scarce institutional attention and resources to makeshift solutions fails to address the root causes of burnout while preempting more effective interventions. Finally, such an approach inaccurately suggests that the experience and consequences of burnout are the responsibility of individual physicians. This is akin to asking drivers to avoid car accidents without investing in repairing and improving hazardous roads. Simply asking physicians to work harder to manage their own burnout will not work.

For these reasons, “physician wellness” approaches to burnout should be deployed only as a complement to the broader interventions outlined in this report that seek to prevent and mitigate burnout through improvements to physicians’ work experience. The recommendations presented here thus reflect a

broad recognition of the inadequacy of individual coping strategies in response to burnout in favor of systemic and institutional reforms to mitigate the prevalence of burnout.

Support proactive mental health treatment and support for physicians experiencing burnout and related challenges

Physicians face stigma and professional obstacles to seeking appropriate care and treatment for burnout and related mental health concerns. Physician institutions — including physician associations, hospitals, and licensing bodies — should take deliberate steps to facilitate appropriate treatment and support without stigma or unnecessary constraints on physicians’ ability to practice.

In April 2018, the Federation of State Medical Boards (FSMB) adopted as policy the recommendations of its Workgroup on Physician Wellness and Burnout, reflecting a policy advanced by the AMA in 2016.¹⁹ The FSMB calls for reconsidering “probing questions” about a physician’s mental health, addiction, or substance use on applications for medical licensure or renewal, as such questions likely discourage physicians from seeking treatment. To the extent that such questions are included, those questions should focus on the presence or absence of current impairments that impact physician practice and competence, in the same manner as questions about physical health.

The FSMB further calls for state medical boards to offer “safe haven” non-reporting to applicants for licensure who are receiving appropriate treatment for mental health or substance use. Such non-reporting would be based on monitoring and good standing with the recommendations of the state physician health program. Finally, the FSMB calls for review of procedures to ensure the privacy and security of the personal health information of physicians disclosed as part of the licensure process.²⁰

Statewide physician health programs (PHPs) also have a role to play in mitigating the burnout crisis. Physician Health Services, Inc. (PHS), a charitable subsidiary of the Massachusetts Medical Society, is the Massachusetts PHP. In light of the extent and severity of the crisis detailed in this report, PHS is committed to continuing to reach out to Massachusetts physicians and hospitals to encourage affected physicians to seek appropriate and confidential mental health care. Many PHPs in other states have expanded their outreach; hospitals and other health care institutions should complement and support this effort by acknowledging physicians’ concerns with seeking mental health care and clearly identifying avenues and opportunities to receive confidential care, particularly for residents and trainees, who are at a vulnerable stage of their careers.

Who will benefit?

Improved access to appropriate mental health care will benefit all physicians and medical students.

Improved EHR standards with strong focus on usability and open APIs

There is broad consensus that a major contributor to physician burnout is dissatisfaction and frustration with EHRs. The 2018 Physician Survey identified EHRs as the single most important “pain point” confronted by physicians in their practice.¹⁰

EHRs are ubiquitous, particularly in the wake of the “meaningful use” incentives introduced in 2009 as part of the Health Information Technology for Economic and Clinical Health (HITECH) Act. The goal of this program was to foster and accelerate the transition to electronic records in order to improve quality of care and patient communication. Yet the results have been mixed at best, particularly with respect to the impact on physician practice and workload. As Atul Gawande, MD, MPH (a Massachusetts surgeon, writer, public health researcher, and CEO of the nonprofit health care venture formed by Amazon, Berkshire Hathaway, and JP Morgan Chase), recently described it, a system that promised to increase physicians’ mastery over their work has, instead, increased their work’s mastery over them.²¹

For many physicians, the patient encounter is now dominated by the demands of the EHR, undermining the crucial face-to-face interaction that is at the core of quality care. For many physicians, EHRs impose a frustrating and non-intuitive workflow that makes excessive cognitive demands and detracts from, rather than reinforces, the goals of good patient care.

In addition, the quantity of mandatory measurement and documentation imposed by current EHRs, due to regulatory and payer requirements, means that physicians typically spend two hours doing computer work for every hour spent face to face with a patient, including numerous hours after work — so-called “pajama time” — completing online administrative tasks that do little if anything to advance the goals of patient care.

The Office of the National Coordinator for Health Information Technology (ONC) within the HHS is responsible for setting standards for certification of EHRs. To receive certification, EHRs are required to have easily extractable measures as mandated by payers, government, and other measurement organizations. Yet, progress has stalled. ONC last issued certification criteria in 2015. This three-year interval is the longest since ONC was given this mandate in 2009, with standards previously issued in 2011, 2014, and

2015. New standards that address the usability and workflow concerns of physicians are long overdue.

To date, ONC has devoted relatively little attention to usability (defined as “the extent to which... users achieve specified goals with effectiveness, efficiency and satisfaction in a specified context of use”²²) in its criteria despite ongoing research, consultations, and a set of use cases and guidelines issued in 2015.²³ In a welcome move, ONC issued a draft, “Strategy on Reducing Regulatory and Administrative Burden Relating to the Use of Health IT and EHRs,” for public comment. The draft acknowledges the role of EHRs in contributing to physician burnout and presents a range of strategies for reducing the burden of documentation, including removing duplicative documentation requirements.²⁴

Part of the problem is a “one size fits all” approach inherent to physicians’ use of a small number of certified EHR systems across a wide range of medical specialties, physician preferences, practices, and patient populations.

Neglect by the regulatory authority has thus contributed to the significant challenges and obstacles physicians experience in using EHRs to effectively and efficiently achieve the goals of patient care. These challenges, in addition to other mandatory measurement processes, take a range of forms, including poor workflow, distracting and unhelpful alerts, and inefficient and burdensome documentation processes.

One promising solution would be to permit software developers to develop a range of apps that can operate with most, if not all, certified EHR systems. This concept is similar to how the Apple and Google app stores can deliver an immense array of functionality on millions of different mobile devices according to user preferences.

Improved EHR usability is, in fact, required by law. The 21st Century Cures Act of 2016 mandates the use of open health care APIs (Application Programming Interfaces). APIs standardize programming interactions, allowing third parties to develop apps that can work with any EHR with “no special effort.” This would in turn allow physicians, clinics, and hospitals to customize their workflow and interfaces according to their needs and preferences, promoting rapid innovation and improvements in design.

Some first steps in this direction have already been taken, with Epic sharing its “App Orchard,” which includes third-party apps and developer tools. Much more remains to be done. To expedite this critical process of improvement, physicians, practices, and larger health care delivery organizations, when seeking to purchase or renew contracts for health IT, should adopt common RFP language specifying and requiring inclusion of a uniform health care API.²⁵ (See figure 1 on page 7, for examples of APIs.)

Another promising but less developed approach to reducing the burden on physicians imposed by EHRs is the development of artificial intelligence (AI) technologies to support clinical documentation and quality measurements.²⁶ AI application could, for example, analyze physician free-text narratives and extract clinical problems and allergies as structured data within an EHR. Similarly, “AI could be used to automatically review clinical documents and either extract information for quality reporting or populate missing data fields,” thereby reducing the burden of documentation born by physicians.²⁶

No matter what tools are brought to bear, a major course correction to reduce physicians’ burden of documentation is now overdue. Further, physicians must be deeply involved in the process of improving EHR usability. There are health care systems in Massachusetts that are working on doing this by devoting significant physician talent to EHR usability. Change must also include the elimination of extraneous or duplicative measurement and documentation requirements that do not support patient care. We join Donald Berwick, MD, in calling for a reduction in mandatory measurement of 50% in three years and 75% in five years.³

Who will benefit?

Given the widespread use of EHRs, improvements in their usability will have a broad impact on medical students and practicing physicians.

Appoint executive-level chief wellness officers at every major health care organization

The scope of the challenge presented by the prevalence of physician burnout demands action across every domain of health care organizations, with creative solutions feeding into an iterative process of improvement across domains from staffing and workflow to electronic health records, workplace culture, and peer support. The C-suite and its boards are awakening to the fact that their workforce is burned out to an unprecedented degree, requiring immediate attention. Further, evidence indicates that effective leadership is one of the most impactful interventions for addressing burnout.²⁷ In recent years, several major health-care organizations, including Stanford Medicine and Kaiser Permanente, have appointed chief wellness officers to address the symptoms and root causes of burnout across their institutions. Furthermore, Stanford Medicine now offers a chief wellness officer course, out of its WellMD Center.

Objections can be raised about the use of the term “wellness” for this role, arguably focusing attention on the health and well-being of individual physicians rather than the structural determinants of burnout. However, it must be acknowledged that, just as *quality improvement* is not negatively

framed in terms of reducing medical errors, the role of the chief wellness officer is best framed not in terms of reducing burnout but in terms of its positive contribution to the organization in question. Furthermore, given the steady growth in chief wellness officer positions and the need to build a dynamic, collaborative community of research, innovation, and practice, it would be counterproductive to set up ultimately meaningless distinctions between different roles focused on improving physicians’ experience on their work — what IHI and others have termed “joy in work.”

Effective CWOs will be senior, full- or part-time executives. Successful solutions will be tailored to the unique features of each health care organization, including patient population, human resources, specialization, and many other factors. As such, successful interventions require senior, visible leadership equipped with a mandate and authority to work systemically across departments, portfolios, and other silos.

Key responsibilities of the chief wellness officer, in addition to acting as champion and organizational focal point, must include the following:

- Studying the scope and severity of burnout across his or her institution
- Reporting findings on wellness/physician satisfaction/joy in work as part of institutional quality improvement goals/processes
- Presenting findings, trends, and strategies as a “dashboard” item for institutional CEOs and boards of directors
- Exploring technological and staffing interventions like scribes, voice recognition technology, workflow improvements, and EHR customization to streamline physician work and reduce administrative burden
- Disseminating successful strategies within a professional community focused on eliminating physician burnout

Who will benefit?

Appointment of a CWO will support all physicians and members of the health care team except, perhaps, the most isolated of physicians in small private practices. CWOs would play a particularly important role with respect to medical students, residents, and fellows. Medical students identified “pressure to succeed” as the leading cause of burnout in an informal survey of MMS committees and sections. Much of this pressure is inherent to this stage of medical training, in which students gain their first clinical exposure. The clinical experience itself is a new and frequently pressure-filled experience; in addition, students typically rotate through short sub-internship windows in which they are expected to identify their future area of specialization and the assessment of attending physicians can have major consequences.

CWOs at teaching hospitals should therefore make the experience of trainees an area of specific attention and implement evidence-based interventions to support meaning in work and belonging among medical students and residents, including formal and informal colleague support groups.

Additionally, a CWO could benefit physicians in hospitals, health systems, and affiliated practices. Departments, units, and practices can survey for burnout, begin to identify their areas of focus and barriers to success and collectively develop solutions. The CWO can help lead this process and provide best practices and other supports.

Key stakeholder engagements

Implementing the aforementioned recommendations will require engagement from sectors across US health care. However, it is worth identifying a few key stakeholders and their key responsibilities here:

1. **Health plans, insurers, and the National Committee for Quality Assurance:** Streamline or reduce Prior Authorization processes through, e.g., use of “Gold Card” systems, and/or online real time approval processes. Reduce measurement requirements that do not directly serve the goals of patient care.
2. **State and federal agencies:** Eliminate physician documentation and measurement requirements that do not directly serve the goals of patient care. Require that certified EHRs make mandated quality measures easily extractable.

3. **Medical schools and residency programs:** Actively support self-care and counseling services for trainees with adequate staffing during off hours and with mentors who are positive role models.
4. **EHR vendors:** Collaborate with physicians and implement stronger usability measures, meet quality measure certification standards, and ensure interoperability.
5. **Hospitals, health systems and provider organizations:** Hire and fully support the work of a physician executive leader focused on wellness (e.g., CWO).
6. **Boards of Registration of Medicine:** Cooperation of State Medical boards to adopt FSMB recommendations and in so doing help reduce the stigma of self-care.

Conclusion

Physician burnout is a public health crisis that urgently demands action by health care institutions, governing bodies, and regulatory authorities. If left unaddressed, the worsening crisis threatens to undermine the very provision of care, as well as eroding the mental health of physicians across the country. While an exhaustive list of solutions to this crisis is beyond the scope of this report, the recommendations presented here represent concrete opportunities to stem the tide of the crisis both in the short and medium terms, while setting the stage for long-term improvement in both physicians’ “joy in work” and health care more broadly — the “Quadruple Aim.”

API-enabled EHRs

Limitless EHR functionality choices are made possible by a store of substitutable and reusable third-party apps.

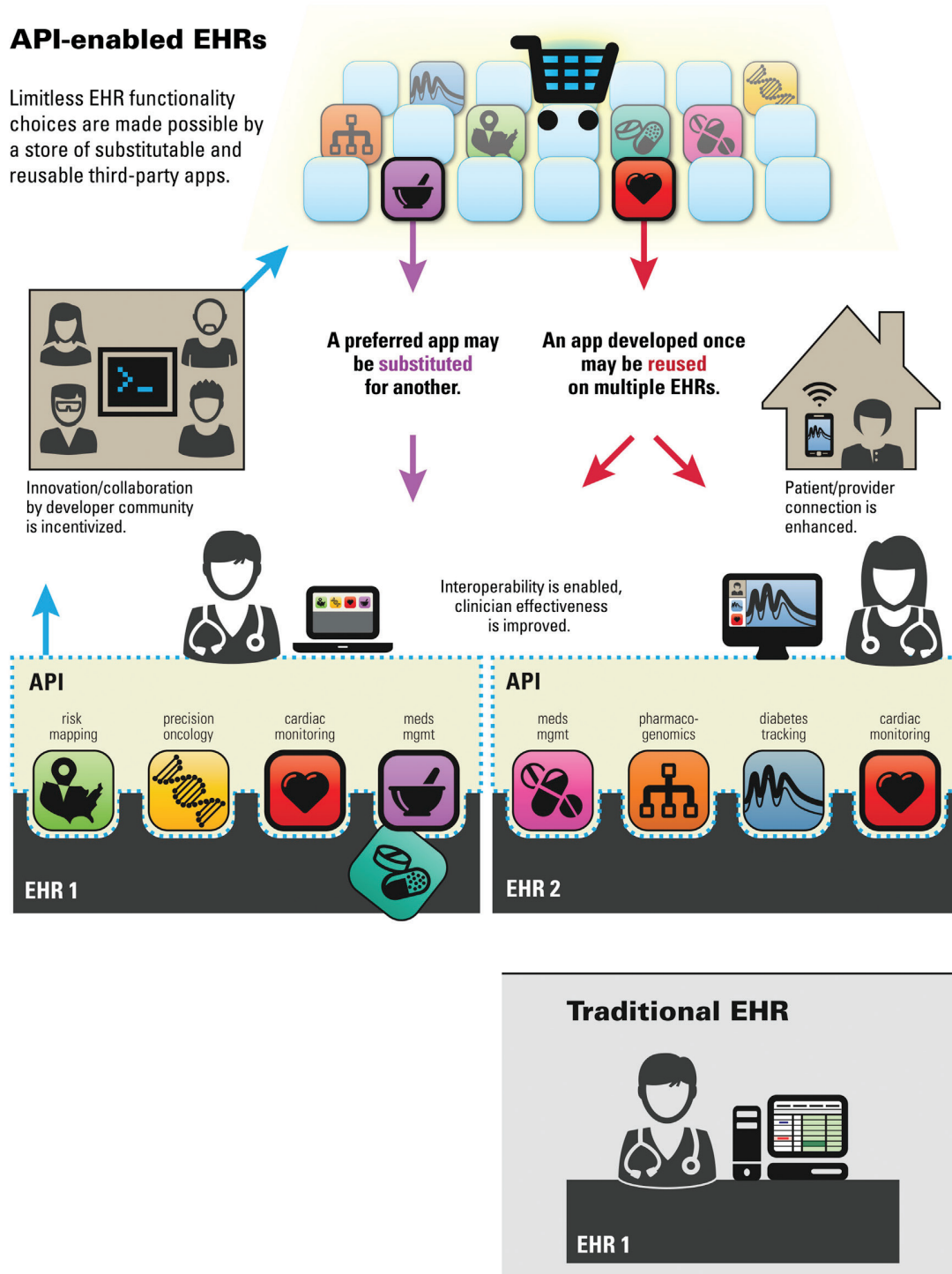


Figure 1. Creating an Ecosystem for Apps

The lower panel shows a classic EHR with a standard view of the data. Above is shown an ecosystem of apps supported by a uniform public application programming interface (API) for healthcare data. A third party app written once can run anywhere. The app can be reused on multiple EHRs and other forms of health information technology. The end user can select apps from a gallery or "app store" and, just as on a smart phone, one app can be readily substituted for another. *Image courtesy of Rachel Eastwood.*

Endnotes

1. Talbot SG, Dean W. Physicians aren't "burning out." They're suffering from moral injury. STAT. <https://www.statnews.com/2018/07/26/physicians-not-burning-out-they-are-suffering-moral-injury>. Published 2018. Accessed November 15, 2018.
2. Alexander AG, Ballou KA. Work-Life Balance, Burnout, and the Electronic Health Record. *Am J Med*. 2018;131(8):857-858. doi:10.1016/j.amjmed.2018.02.033
3. Berwick DM. Era 3 for Medicine and Health Care. *JAMA*. 2016;315(13):1329. doi:10.1001/jama.2016.1509
4. Noseworthy J, Madara J, Cosgrove D, et al. Physician Burnout Is A Public Health Crisis: A Message To Our Fellow Health Care CEOs. *Heal Aff Blog*. 2017. doi:10.1377/hblog20170328.059397
5. Perlo J, Balik B, Swensen S, Kabcenell A, Landsman J, Feeley D. *IHI Framework for Improving Joy in Work*. Cambridge, MA; 2017. <http://www.ihl.org/resources/Pages/IHIWhitePapers/Framework-Improving-Joy-in-Work.aspx>.
6. Brigham T, Barden C, Legreid Dopp A, et al. A Journey to Construct an All-Encompassing Conceptual Model of Factors Affecting Clinician Well-Being and Resilience. *NAM Perspect*. 2018;8(1). doi:10.31478/201801b
7. National Academy of Medicine. Validated Instruments to Assess Work-Related Dimensions of Well-Being. nam.edu. <https://nam.edu/valid-reliable-survey-instruments-measure-burnout-well-work-related-dimensions>.
8. Kumar S. Burnout and Doctors: Prevalence, Prevention and Intervention. *Healthc* (Basel, Switzerland). 2016;4(3). doi:10.3390/healthcare4030037
9. Dyrbye LN, Burke SE, Hardeman RR, et al. Association of Clinical Specialty With Symptoms of Burnout and Career Choice Regret Among US Resident Physicians. *JAMA*. 2018;320(11):1114-1130. doi:10.1001/jama.2018.12615
10. Hawkins M. 2018 Survey of America's Physicians: Practice Patterns & Perspectives. 2018. <https://physiciansfoundation.org/wp-content/uploads/2018/09/physicians-survey-results-final-2018.pdf>.
11. Rotenstein LS, Torre M, Ramos MA, et al. Prevalence of Burnout Among Physicians. *JAMA*. 2018;320(11):1131. doi:10.1001/jama.2018.12777
12. Shanafelt TD, Mungo M, Schmitgen J, et al. Longitudinal Study Evaluating the Association Between Physician Burnout and Changes in Professional Work Effort. *Mayo Clin Proc*. 2016;91(4):422-431. doi:10.1016/j.mayocp.2016.02.001
13. Shanafelt TD, Dyrbye LN, West CP, Sinsky CA. Potential Impact of Burnout on the US Physician Workforce. *Mayo Clin Proc*. 2016;91(11):1667-1668. doi:10.1016/j.mayocp.2016.08.016
14. Shanafelt T, Goh J, Sinsky C. The Business Case for Investing in Physician Well-being. *JAMA Intern Med*. 2017;177(12):1826. doi:10.1001/jamainternmed.2017.4340
15. Anagnostopoulos F, Liolios E, Persefonis G, Slater J, Kafetsios K, Niakas D. Physician Burnout and Patient Satisfaction with Consultation in Primary Health Care Settings: Evidence of Relationships from a one-with-many Design. *J Clin Psychol Med Settings*. 2012;19(4):401-410. doi:10.1007/s10880-011-9278-8
16. Tawfik DS, Profit J, Morgenthaler TI, et al. Physician Burnout, Well-being, and Work Unit Safety Grades in Relationship to Reported Medical Errors. *Mayo Clin Proc*. 2018;93(11):1571-1580. doi:10.1016/j.mayocp.2018.05.014
17. Bodenheimer T, Sinsky C. From triple to quadruple aim: care of the patient requires care of the provider. *Ann Fam Med*. 2014;12(6):573-576. doi:10.1370/afm.1713
18. Goodman MJ, Schorling JB. A Mindfulness Course Decreases Burnout and Improves Well-Being among Healthcare Providers. *Int J Psychiatry Med*. 2012;43(2):119-128. doi:10.2190/PM.43.2.b
19. Moran M. AMA to State Medical Boards: Don't Ask About Past Mental Illness. *Psychiatr News*. 2016;51(24):1-1. doi:10.1176/appi.pn.2016.12b6
20. Federation of State Medical Boards. *Physician Wellness and Burnout*. 2018. <http://www.fsmb.org/siteassets/advocacy/policies/policy-on-wellness-and-burnout.pdf>.
21. Gawande A. Why Doctors Hate Their Computers. *The New Yorker*. <https://www.newyorker.com/magazine/2018/11/12/why-doctors-hate-their-computers>. Published November 12, 2018.
22. National Institute of Standards and Technology. Health IT Usability. Nist.gov. <https://www.nist.gov/programs-projects/health-it-usability>. Published 2017.

23. Lowry S, Ramaiah M, Taylor S, et al. *Technical Evaluation, Testing, and Validation of the Usability of Electronic Health Records: Empirically Based Use Cases for Validating Safety-Enhanced Usability and Guidelines for Standardization*. 2015. doi:10.6028/NIST.IR.7804-1
24. The Office of the National Coordinator for Health Information Technology. *Strategy on Reducing Regulatory and Administrative Burden Relating to the Use of Health IT and EHRs*. 2018. [https://www.healthit.gov/sites/default/files/page/2018-11/Draft Strategy on Reducing Regulatory and Administrative Burden Relating.pdf](https://www.healthit.gov/sites/default/files/page/2018-11/Draft%20Strategy%20on%20Reducing%20Regulatory%20and%20Administrative%20Burden%20Relating%20to%20the%20Use%20of%20Health%20IT%20and%20EHRs.pdf).
25. Mandl KD, Mandel JC, Kohane IS. Driving Innovation in Health Systems through an Apps-Based Information Economy. *Cell Syst*. 2015;1(1):8-13. doi:10.1016/j.cels.2015.05.001
26. Nundy S, Hodgkins M. The Application of AI to Augment Physicians and Reduce Burnout. *Heal Aff Blog*. March 2018. doi:10.1377/hblog20180914.711688
27. Shanafelt T, Noseworthy J. Executive Leadership and Physician Well-being: Nine Organizational Strategies to Promote Engagement and Reduce Burnout. *Mayo Clin Proc*. 2017;92(1):129-146. doi:10.1016/j.mayocp.2016.10.004

Special thanks to the following MMS staff members

Lois Cornell, Executive Vice President, MMS; Charles Alagero, Vice President of Advocacy and Member Relations; Therese Fitzgerald, PhD, MSW, Director of Health Care Research, Analytics, and Insight; Tom Flanagan, Media Relations Manager; Bill Howland, Director of Communications, Marketing, and Member Engagement; Sarah Bates, MBE, Government Relations and Research Analyst; Susan Webb, MHA, Director of Health Policy and Public Health; **NEJM Group Premedia and Publishing Services Staff:** Misty Horten, Senior Layout Designer; Bob Harless, Media Project Manager; Chris Iacono, Senior Proofreader and Copy Editor; and Jay Leonard, Senior Proofreader and Copy Editor.



**MASSACHUSETTS
MEDICAL SOCIETY**

Every physician matters, each patient counts.

860 WINTER STREET, WALTHAM, MA 02451-1411

TEL (781) 893-4610 TOLL-FREE (800) 322-2303 FAX (781) 893-8009 WWW.MASSMED.ORG