GOAL 1. CREATE POSITIVE WORK ENVIRONMENTS: TRANSFORM HEALTH CARE WORK SYSTEMS BY CREATING POSITIVE WORK ENVIRONMENTS THAT PREVENT AND REDUCE BURNOUT, FOSTER PROFESSIONAL WELL-BEING, AND SUPPORT QUALITY CARE.

Recommendation 1A. Health care organizations should develop, pilot, implement, and evaluate organization-wide initiatives to reduce the risk of burnout, foster professional well-being, and enhance patient care by improving the work environment. To accomplish this, they should:

- Commit their executive and board leadership to monitor and continuously improve the clinical work environment. Specifically, governing boards should hold organizational leaders accountable for creating and maintaining a positive and healthy work environment.
- Create and maintain, at the health care organization executive level, a leadership role and function responsible for improving and sustaining professional well-being across the organization. This leader and his or her team should strengthen coordination across all organizational programs, especially those that deal with patient care quality and safety and with occupational safety.
- Align the design of interventions to prevent and reduce burnout and promote professional well-being with desired organizational values such as respect, justice, ethical practice, compassion, and diversity.
- Assess the foreseeable impact of business and management decisions on the work environment. Specifically, health care organization leaders should evaluate how decisions may affect clinicians’ job demands (e.g., additional clerical and administrative burden on clinicians, competing demands on clinicians, unnecessary stress) and job resources (e.g., supportive managers and leaders, useful and usable technologies, effective teamwork), patient care quality and safety, and levels of burnout within the organization. Decisions and their implementation should be adjusted accordingly.
- Hold leaders at all levels of the organization accountable for improving the work environment within their scope of responsibility.

Recommendation 1B. To guide new systems that have been designed to promote professional well-being and patient care quality, health care organizations should adopt and apply the following principles that improve the work environment and balance job demands and job resources.

- Enhance meaning and purpose in work, and optimize workload and task distribution.
- Facilitate and incentivize interprofessional teamwork, collaboration, communication, and professionalism.
- Establish and sustain an organization-wide and unit-level culture that supports psychological safety and facilitates participatory decision making and peer support.
- Align incentives, compensation, and reward systems for clinicians and work units with organizational and professional values.
- Provide access to resources, such as coaching and adequate time for professional and personal development, to support clinicians in managing stress and adapting to change.

Recommendation 1C. Health care organizations should routinely measure and monitor clinician burnout and ameliorate the work system factors that erode professional well-being. To accomplish this, they should:

- Use validated measurement tools to assess the extent of burnout in their organization and the potential contributory factors relevant to their system. It is essential to identify data capture strategies that minimize response burden and protect clinicians’ privacy and address any stigma or pressure that clinicians may perceive related to measurement or reporting.
Accurately assess total workload and the complexity of the work expected of clinicians (including continuing professional education, maintenance of certification, required institutional learning modules, and work performed outside of scheduled hours). For clinicians in academic institutions, this assessment of work should include clinical work, research and scholarship, teaching, and service activities required to meet criteria for academic promotion. Clinical work involves cognitive processes, decision making, teams, and social interactions that need to be considered to optimize clinician workload so that it is sustainable.

Obtain clinician and patient input to identify and eliminate documentation and other administrative burdens in the organization that are not mandatory and contribute little or no value to patient care. Assess opportunities to utilize clinical assistants or non-clinical staff to perform the work.

Conduct reporting, at a minimum annually, overseen by the governing board, on the professional well-being of the organization's clinicians, including the outcomes of interventions. These reports should be targeted internally, including to leadership, managers, and clinicians.

Use the data to guide system-oriented efforts to prevent and reduce clinician burnout and improve professional well-being as part of a continuous learning and improvement process where data are shared transparently within the organization.

GOAL 2. CREATE POSITIVE LEARNING ENVIRONMENTS: TRANSFORM HEALTH PROFESSIONS EDUCATION AND TRAINING TO OPTIMIZE LEARNING ENVIRONMENTS THAT PREVENT AND REDUCE BURNOUT AND FOSTER PROFESSIONAL WELL-BEING.

Recommendation 2A. Health professions educational institutions and affiliated clinical training sites should develop, pilot, implement, and evaluate initiatives to improve the learning environment and support learner professional well-being. To accomplish this, they should:

- Commit their executive and board leadership to the improvement of the learning environment. Specifically, governing boards should provide the resources necessary to create and maintain a positive learning environment and then hold educational leadership accountable. At the executive level, educators should designate a leadership role and function responsible for improving and sustaining learner professional well-being across the organization and across the continuum of learners. These efforts should be coordinated with individuals charged with improving the clinical environment where learners interact with clinical teachers.

- Ensure that workload, rewards and incentives, and the professional development of faculty and other educators of health professional learners promote positive role model behaviors and the professional development and professional well-being of learners.

- Enhance the ability of learners to contribute meaningfully to patient care while learning, and implement strategies that build relationships among and between learners, faculty, and other health professionals with the intent to build social support and interprofessional practice.

- Create systems of learner evaluation that fairly evaluate competencies while mitigating undue stress and promoting a collaborative learning environment, including criterion-based grading and a consideration of pass–fail grading.

- Provide resources for learners to promote and support their own personal and professional well-being. Establish and sustain a system-wide culture that promotes help-seeking behaviors and supports psychological safety.

Recommendation 2B. Health professions educational institutions and affiliated clinical training sites should routinely assess the learning environment and factors that erode professional well-being and contribute to learner burnout. The data should guide systems-oriented efforts to optimize the learning environment, prevent and reduce learner burnout, and improve professional well-being. Health professions educational institutions should:

- Use validated measurement tools to assess the extent of the burnout problem and the potential contributory factors relevant to their system. It is essential to identify data capture strategies that minimize response burden, protect individual privacy, and address any stigma or pressure that learners may perceive related to measurement or reporting.

- Accurately assess the total clinical and academic workload expected of learners (including preparation for licensure examinations and required institutional and professional learning activities)
with the goal of achieving a reasonable workload that is sustainable.
• Conduct at least annual reporting, overseen by the leadership of the health professions education institution and affiliated clinical training sites, on the professional well-being of its learners, including the outcomes of interventions taken to improve learner professional well-being. These reports should be targeted internally, including to leadership, learners, and faculty.
• Ensure that barriers to participation in professional well-being assessments are effectively addressed. It is essential for health professions educational institutions to protect learners’ privacy and address any stigma or pressure that learners may perceive related to assessment or reporting.
• Use the data to guide systems-oriented efforts to prevent and reduce learner burnout and improve professional well-being as part of a continuous learning and improvement process where data are shared transparently across learners’ health professions educational institutions and affiliated clinical training sites.

Recommendation 2C. Accreditors, regulators, national educational organizations, health professions educational institutions, and other related external entities should partner to support the professional well-being and development of learners. To accomplish this, they should:
• Commit, at the highest level, to identifying, implementing, and continuously evaluating strategies that optimize learner professional well-being and development.
• Support the discovery and implementation of evidence-based approaches to reduce the risk of learner burnout and optimize learner professional well-being while simultaneously ensuring the appropriate development of competencies, skills, professionalism, and ethical standards.
• Engage and commit leadership at all levels to curbing learner educational debt, with such strategies as improving access to scholarships and affordable loans and building new loan repayment systems.
• Assess the foreseeable impact of decisions on learner professional well-being. Specifically, accreditors and administrators of licensure and certifying examinations should evaluate how their policies may affect learner professional well-being and willingness to seek emotional support.

GOAL 3. REDUCE ADMINISTRATIVE BURDEN: PREVENT AND REDUCE THE NEGATIVE CONSEQUENCES ON CLINICIANS’ PROFESSIONAL WELL-BEING THAT EMANATE FROM LAWS, REGULATIONS, POLICIES, AND STANDARDS PROMULGATED BY HEALTH CARE POLICY, REGULATORY, AND STANDARDS-SETTING ENTITIES, INCLUDING GOVERNMENT AGENCIES (FEDERAL, STATE, AND LOCAL), PROFESSIONAL ORGANIZATIONS, AND ACCREDITORS.

Recommendation 3A. Health-care-policy, regulatory, and standards-setting entities at the federal and state level, such as the U.S. Department of Health and Human Services’ Centers for Medicare & Medicaid Services and Office of the National Coordinator, the National Quality Forum, state legislatures, professional boards, and departments of health, should systematically assess laws, regulations, policies, and standards to determine their effects on clinician job demands and resources as well as the effects on patient care quality, safety, and cost. To accomplish this, these entities should:
• Allocate the necessary resources to support assessment of the effects of regulations, policies, and standards on clinicians in various care settings. Formal assessment should be conducted both prior to and following implementation in order to evaluate how the requirements affect clinician workload and whether they are redundant or conflict with other requirements. Regulations, policies, and standards should then be modified accordingly based on these findings.
• Apply human-centered design and human factors and systems engineering approaches in developing regulations, policies, and standards, including those related to payment and performance to minimize the potential risk for adverse effects on clinicians and patients.
• Periodically review laws, regulations, policies and standards related to the clinical work environment for alignment and usability with new technology.
• Align licensure standards and enable broad license reciprocity for all clinicians regulated by states.

Recommendation 3B. Health-care-policy, regulatory, and standards-setting entities, in conjunction with health care organizations, should adopt approaches to documentation and reporting that incorporate human-centered design and human factors and systems engineering approaches and that also are technology-enabled. To facilitate this:
• Payers and health care organizations should promote the development and use of technology to streamline documentation for billing and quality reporting, with the goal of decreasing to the greatest extent possible clinicians’ workload and non-patient care-related work.
• Professional certification and health care accrediting entities should promote the use of technology to align documentation requirements and streamline reporting.
• Professional organizations and standards setting bodies representing the various clinical disciplines should regularly review and systematically identify regulatory policies and professional standards that are commonly used in their field whose necessity should be questioned if they contribute little or no value to patient care.

GOAL 4. ENABLE TECHNOLOGY SOLUTIONS: THROUGH COLLABORATION AND ENGAGEMENT OF VENDORS, CLINICIANS, AND EXPERT HEALTH INFORMATION TECHNOLOGY SYSTEM DEVELOPERS, DEVELOP HEALTH INFORMATION TECHNOLOGIES TO SUPPORT CLINICIANS IN PROVIDING HIGH-QUALITY PATIENT CARE.

Recommendation 4A. Stakeholders should engage clinicians in the design and deployment of health information technology (IT), including electronic health records, using human-centered design and human factors and systems engineering approaches to ensure the effectiveness, efficiency, usability, and safety of the technology. For example:
• Regulators should use rigorous human factors usability and safety criteria to evaluate and certify health IT.
• Health IT vendors and health care organizations should design and configure systems to improve the clinical work environment, including attention to cognitive load and workflows that reduce the demand of clinical documentation and automate non-essential tasks.
• Health IT vendors, health care organizations, and regulators should closely monitor implemented technology for negative consequences and should have an existing mitigation plan to address them as they arise.
• Policy makers and organizational leaders should create incentives for, and lower barriers to, the development and implementation of new ideas, approaches, and technologies that have the promise of enhancing professional well-being as well as improving the quality of care.

Recommendation 4B. Federal and state policy makers should facilitate the optimal flow of useful information among all members of the health care community through regulation and rule making. Health information sources should be shared efficiently, safely, and securely, including but not limited to electronic health records, electronic pharmacy records, digital health applications, medical devices, and quality data repositories.

Recommendation 4C. Federal policy makers, in collaboration with private sector health information technology companies and innovators and other relevant stakeholders, should develop the infrastructure and processes that will lead to a truly patient-centered and clinically useful health information system. This would be an electronic interface that gives the entire care team, including the patient, the ability to collect and use timely and accurate data to achieve high-quality care. A major goal of this new health information system should be to allow clinicians to focus on optimizing patient and population health, while adjuvant processes and technologies derive, to the extent possible, the essential business, administrative, and research data necessary to deliver high-value care efficiently and effectively.

GOAL 5. PROVIDE SUPPORT TO CLINICIANS AND LEARNERS: REDUCE THE STIGMA AND ELIMINATE THE BARRIERS ASSOCIATED WITH OBTAINING SUPPORT NEEDED TO PREVENT AND ALLEVIATE BURNOUT SYMPTOMS, FACILITATE RECOVERY FROM BURNOUT, AND FOSTER PROFESSIONAL WELL-BEING AMONG LEARNERS AND PRACTICING CLINICIANS.

Recommendation 5A. State licensing boards, health system credentialing bodies, disability insurance carriers, and malpractice insurance carriers should either not ask about clinicians’ personal health information or else inquire only about clinicians’ current impairments due to any health condition rather
than including past or current diagnosis or treatment for a mental health condition. They should be transparent about how they use clinicians’ health data and supportive of clinicians in seeking help.

**Recommendation 5B.** State legislative bodies should create legal protections that allow clinicians to seek and receive help for mental health conditions as well as to deal with the unique emotional and professional demands of their work through employee assistance programs, peer support programs, and mental health providers without the information being admissible in malpractice litigation.

**Recommendation 5C.** Health professions educational institutions, health care organizations, and affiliated training sites should identify and address those aspects of the learning environment, institutional culture, infrastructure and resources, and policies that prevent or discourage access to professional and personal support programs for individual learners and clinicians.

**GOAL 6. INVEST IN RESEARCH: PROVIDE DEDICATED FUNDING FOR RESEARCH ON CLINICIAN PROFESSIONAL WELL-BEING.**

**Recommendation 6A.** By the end of 2020 federal agencies, including the Agency for Healthcare Research and Quality, the National Institute for Occupational Safety and Health, the Health Resources and Services Administration, and the U.S. Department of Veterans Affairs, should develop a coordinated research agenda to examine:

- Organizational, learning environment, and health care system factors that contribute to occupational distress and threaten or promote the professional well-being of health care learners and practicing professionals;
- The implications of clinician and learner distress and degraded professional well-being on health care and workforce outcomes as well as personal outcomes;
- Potential system-level interventions to improve clinician and learner professional well-being and help those with burnout to recover.

These federal agencies should commit funding to implement this research agenda. The amount of this funding should be commensurate with the magnitude of the problem and its impact on the health care delivery system. A particular area of focus should be the support of rigorous prospective empirical studies, including multi-center randomized controlled trials, of system-level interventions.

**Recommendation 6B.** Federal agencies, including the Agency for Healthcare Research and Quality, the National Institute for Occupational Safety and Health, the Health Resources and Services Administration, and the U.S. Department of Veterans Affairs, should pursue and encourage opportunities for public–private partnerships among a broad range of stakeholders, such as health professional associations, foundations, payers, health care industry, health care organizations, health professions educational institutions, and professional liability insurers, to support research on clinician and learner professional well-being and burnout. Organizations need to be willing to test, learn, and share in order to accelerate the pace of change. A public–private partnership should support the creation and ongoing management of a national registry of evidence-based interventions to facilitate research and innovation beneficial to every stakeholder with responsibility for eliminating clinician and learner burnout and improving professional well-being.

To read the full report, please visit nam.edu/ClinicianWellBeingStudy.