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Veterans Health Administration
Health Services Research & Development Service

VA Clinician Burnout Research Agenda:
Summary Report

Executive Summary

Clinician burnout has become a dominant concern for health systems leaders, policymakers, and clinicians. In a **2022 Advisory**, United States Surgeon General Dr. Vivek Murthy sounded the alarm and underscored the urgent need to address the rising levels of burnout in the health care workforce across the country, laying out recommendations for health care organizations, policymakers, researchers, and other stakeholders to address this crisis. The Department of Veterans Affairs (VA), Veterans Health Administration (VHA) has similarly acted to address burnout among VA clinicians, establishing the **Task Force to Reduce Employee Burnout and Optimize Organizational Thriving (REBOOT)** in 2021. The REBOOT Task Force worked with VA researchers to review the existing evidence on burnout and develop a comprehensive set of recommendations for immediate action. At the same time, recognizing that there are gaps in the existing evidence overall and within VA settings specifically, the VA Health Services Research and Development (HSR&D) program launched an effort in collaboration with AcademyHealth, the national organization for health services research and policy, to establish a research agenda to guide future investments in research on the drivers of burnout as well as effective interventions at all levels to prevent, mitigate and eliminate clinician burnout. With over nine million Veterans enrolled, the VHA is the nation's largest integrated health care system, and its mission is to honor America's Veterans by providing exceptional health care that improves their health and well-being. As such, VHA is in a unique position to evaluate solutions and interventions across multiple levels of the organization.

Building upon previously published research and activities, AcademyHealth collaborated with a national advisory committee and a multidisciplinary group of experts and stakeholders from across and outside the VA to generate a set of priority research questions to address clinician burnout. Using an adaptation of **The Stanford Model of Professional Fulfillment™** resulted in an agenda that includes research questions related to the design, implementation and evaluation at 1) the national level; 2) individual VA Medical Centers (VAMCs) in three domains: (a) enhancing the efficiency of clinical practice; (b) promoting a culture of wellness; and (c) ensuring institutional support for professional well-being; and 3) improving research and its impact.

Investment in VA Health Services Research is Needed

The resulting prioritized agenda makes clear that while existing evidence supports immediate action by all levels of the VHA in response to the recommendations put forth by the REBOOT Task Force, many questions remain about the most effective and sustainable approaches and the distributional impacts of any changes made. Thus, substantial investments in health services research are needed to continue to guide the VA's actions, investments, evaluations, and commitment to reducing clinician burnout.

Key recommendations include:

- **Prioritize research on interventions to address burnout at the organization or system levels**. The biggest gap in the existing evidence base on clinician burnout is not its drivers or causes, but how to effectively address it across teams, divisions, and whole systems.
- **Capitalize on the variation** between VAMCs to study the comparative effectiveness and costs of interventions to address burnout, specifically which approaches work for whom and under which circumstances. Also, there is the opportunity to learn from "positive deviants," identifying VAMCs with low rates of clinician burnout, and leveraging their approaches at an organizational level.
- **Leverage the VA's ability to conduct large, controlled studies across sites** and/or clinician types, particularly for "whole system interventions" with varying components. Findings should be widely disseminated and implemented across VA sites and share their learnings with health systems nationally and globally.
- **Focus on the effectiveness of burnout interventions on clinicians of color and other dimensions of diversity and identity** that affect the clinician's interactions with healthcare staff and patients. This is a salient gap in the evidence.

- **Include studies on the role of effective VA leadership (from senior leaders to supervisors of frontline staff)**, including strategies for leadership training and support, trust in leadership, and approaches for leaders to create and sustain a welcoming and supportive culture were all aspects of the priority questions.

Over 90 discrete research questions and issues were identified across the five areas examined. Below are abbreviated versions of the top three in each area. The complete list of all the priorities put forward by experts and stakeholders are included in Appendix A.

Top Three Research Questions in Each Domain

Context of National and Local Policy	1	What implementation strategies ensure flexible adoption of interventions so that local leaders can adapt policies to the specific needs of their clinicians and the local context?
	2	What aspects of clinician administrative workload can be offloaded and/or centralized to reduce workload burden on clinicians without spreading burnout among other staff? How can we track, measure, and evaluate the impact of this intervention?
	3	What factors lead to success [or failure] when standing up new programs to address clinician burnout? What implementation strategies and resources lead some programs to become more effective at reducing burnout than others?
Culture of Wellness	1	How do sites address issues such as equity and bias in the workplace, psychological safety, and fear of disclosure? How can well-being leaders/offices, diversity, equity, and inclusion (DEI) leaders/offices and unit leaders (department chairs/section or division chiefs, etc.) effectively work together to address these issues?
	2	How do organizations support the professional well-being of staff at all levels, including administrative staff who are booking appointments, members of the operations teams, medical assistants (MAs), etc.?
	3	Identify ways to study and identify what clinicians consider meaningful work and ways organizations can enhance opportunities to perform these activities while minimizing other (e.g., administrative) burdens.
Efficiency of Practice	1	What is the relative impact of individual workflow inputs (e.g., pre-visit planning or lab testing) and teamwork inputs (e.g., team structure or skill level) on outcomes such as capacity for patient care, quality, satisfaction, and costs as well as on patient scheduled hours to total work ratio?
	2	What range and/or mix of team skills is most effective in a range of clinical settings?
	3	What strategies are effective at reducing administrative burden on providers?
Institutional Support of Professional Well-Being	1	How can organizations reduce the stigma of clinicians seeking help to deal with mental health issues?
	2	How are VA Medical Centers ensuring clinicians have protected time to access services such as therapy? What structure of protected time is most effective for a range of clinicians?
	3	In the long term, which methods of offering therapy services to employees improve the experience of care (burnout), systems outcomes (turnover), and patient outcomes? Does this vary by specialty, demographic, or care setting?
Improving Research and Its Impact	1	What data are needed for studies to understand administrative burden on clinicians and its contribution to burnout?
	2	What existing data can the VHA use to effectively assess workforce capacity needs? How can the VHA strengthen its ability to translate data into policy development and implementation?
	3	How can health care organizations learn from clinicians who are not experiencing burnout?

Introduction

In a **2022 Advisory**, United States Surgeon General Dr. Vivek Murthy sounded the alarm and underscored the urgent need to address rising levels of burnout in the health care workforce across the country. The Advisory laid out recommendations for health care organizations, policymakers, researchers, and other stakeholders to address this crisis.

Burnout

A syndrome characterized by high emotional exhaustion, high depersonalization (i.e., cynicism), and a low sense of personal accomplishment from work.

Even before the COVID-19 pandemic, burnout among the health care workforce has long been a pervasive trend across the nation. With over nine million Veterans enrolled, the VHA is the nation's largest integrated health care system, and its mission is to honor America's Veterans by providing exceptional health care that improves their health and well-being. As such, the VA employs over XXX clinicians and requested guidance on research priorities to guide the VA's efforts to address clinician burnout. This report builds on existing work in the field by focusing on the critical organizational and systems-level research needed to address and remedy the drivers of clinician burnout in the VA and other health care systems. The report is intended to inform decision-making by the VA Health Services Research and Development (HSR&D) program as well as other funders of health services research (HSR) to guide future investments in responsive research.

Prior Research

The National Academies of Sciences, Engineering, and Medicine (NASEM)'s 2019 consensus study ***Taking Action Against Clinician Burnout: A Systems Approach to Professional Well-Being*** recognized provider burnout as an ongoing crisis in the United States, impacting providers across all specialties, practice levels, and care settings. Even before the COVID-19 pandemic, burnout was on the rise among the health care workforces. The NASEM report highlighted how mounting systems pressures such as increased workload, time pressures, technology challenges, moral and ethical dilemmas, and insufficient job resources and supports have contributed to overwhelming job demands and increased burnout. The report also examined how the chronic imbalance between job demand and resources has been further exacerbated by a national push for system performance improvement and a drastic increase in the amount of medical information and data collection, leading to growing administrative burden. Other drivers of burnout include the growing demand for health care among the aging population as well as a long-standing and growing shortage of health care professionals in many care settings. In a concurrent **research agenda**, NASEM recommended rigorous research across five domains (see Box 1). In a related and ongoing effort, the National Academy of Medicine (NAM) established the **Action Collaborative on Clinician Well-Being and Resilience** in 2017. A network of more than two hundred organizations, the Collaborative works to raise visibility and improve understanding of the challenges to clinician well-being as well as advance evidence-based, multidisciplinary solutions. In 2022, the Collaborative released a **National Plan for Health Workforce Well-Being** that included seven priority areas: (1) positive work and learning environments and culture; (2) measurement, assessment, strategies, and research of well-being; (3) mental health and stigma, (4)

Box 1: Overview of NASEM's Research Agenda, Published Alongside the 2019 Consensus Study *Taking Action Against Clinician Burnout: A Systems Approach to Professional Well-Being*

1. Foundational epidemiologic research is needed to better define the prevalence of burnout among select groups of clinicians and learners within select health profession education programs.
2. Hypothesis-generating research is needed to define optimal professional fulfillment and well-being.
3. Research is needed to identify work-system factors, learning environment factors, and individual mediating factors that increase the risk for burnout or that promote professional well-being among clinicians and health profession learners.
4. Research is needed to gain further understanding of the implications of clinician and learner burnout and professional well-being on patients, clinicians, learners, health care organizations, and society.
5. Research is needed to evaluate systems-based interventions to prevent and mitigate the risk of burnout and optimize professional well-being across the career span as well as help clinicians and learners with burnout recovery.

compliance, regulatory and policy barriers for health workers' daily work; (5) effective technology tools; (6) effects of COVID-19 on the health workforce; and (7) recruitment of the next generation.

Burnout is a **well-established issue** impacting health care providers across a range of practice settings and is characterized by emotional exhaustion, depersonalization, and a low sense of personal accomplishment at work. The most used tool to measure burnout is the Maslach Burnout Inventory (MBI), which has been validated and tailored to specific populations. Although the MBI is widely accepted, some have **critiqued** it for being imprecise and overly inclusive. As a result, **other measures of burnout** have also been developed such as the Patient Health Questionnaire-9, the Oldenburg Burnout Inventory, the Copenhagen Burnout Inventory, and the Utrecht Work Engagement Scale. Through these measurement efforts and others, burnout has been defined in many ways. For the purposes of this report, we will use the definition put forth by the **NASEM 2019 consensus report:** A syndrome characterized by high emotional exhaustion, high depersonalization (i.e., cynicism), and a low sense of personal accomplishment from work.

Evidence on the Drivers and Contributors to Clinician Burnout

There is now an expansive evidence base, including numerous **systematic reviews**, on the **drivers of burnout** in the health care workforce and the impact of burnout on a **range of outcomes for health care workers, health systems, and patients**. Burnout has been studied among **physicians**, **nurses**, and **other health professionals** and is consistent with the literature on the **impact of burnout among workers in general**. Of note, **fewer studies** exist on the mental health of health care workers during major epidemics and pandemics, today's enduring context for action. In a **2020 rapid review**, stigma and misinformation were noted as additional factors affecting the mental health of frontline health care workers during pandemics causing additional anxiety, depression and post-traumatic stress symptoms. **In one study**, these symptoms were found to persist for up to three years post outbreak. A **2021 Cochrane review** of interventions to support the resilience and mental health of frontline health and social care workers during outbreaks found only one study of very low-quality evidence. The Cochrane review also examined 16 studies assessing barriers and facilitators to interventions addressing burnout and found three common factors that facilitated implementation of interventions: ability to adapt to a local area, effective communication, and safe and supportive learning environments.

Most recently, a **2022 report** from the RAND Corporation contains a series of five systematic literature reviews across a range of burnout indicators in the military and Veterans Health Administration (VHA) settings (concepts of burnout, prevalence and incidence of burnout, risk factors for burnout, characteristics of successful burnout interventions, and evaluations of burnout interventions). Their findings were similar, with leading risk factors for burnout being workplace factors such as unmanageable workload, poor work/life balance, limited job autonomy, and lack of perceived leadership support. They also highlighted challenges that are unique to the VHA provider population, such as the increased emotional burden of working with patients who are at a higher risk for conditions such as post-traumatic stress disorder.

Burnout has been found to be a significant predictor of numerous consequences for the worker including **coronary heart disease**, **musculoskeletal pain**, and numerous psychological outcomes such as **depression and anxiety**. In addition to its impact on clinicians, burnout has also been shown to affect the **quality of patient care**, **patient safety**, and **staff turnover** as well as producing measurable **economic impacts** due to increased physician turnover and reduced clinical hours.

A key consideration across all the consensus reports is that the known drivers of burnout are variable. A **recent review** of national burnout trends among Veterans Administration (VA) physicians found that, although over a third of practicing physicians included in the survey were experiencing burnout, these rates were higher for primary care physicians and those practicing at small, rural sites. Another **discussion paper** examines how drivers of burnout may vary by provider demographics, such as gender identity. Additionally, several studies emphasize the importance of expanding the body of evidence on the variable drivers of burnout among underrepresented groups. For example, **a 2021 systematic review** examining racial and ethnic differences in burnout identified 16 studies but found that many had inconclusive or nuanced findings. The review suggested increased research on burnout measurement, conceptualization, and mitigation among underrepresented populations.

Evidence on the Effectiveness of Interventions to Address Burnout

While our understanding of the prevalence and drivers of burnout as well as the consequences of burnout on providers, health systems, and patients has increased since the 2019 NASEM report (NASEM areas 1, 3, and 4; see Box 1), relatively less is known about the range of effective policies, strategies, and interventions to prevent or reduce burnout (NASEM area 5; see Box 1). An early **2008 systematic review** focusing on interventions to address burnout among resident physicians found few studies that examined intervention effectiveness, as well as a lack of quality and rigor among those that did. A **meta-analysis of interventions** to address burnout among mental health workers found small but positive effects on provider burnout. This analysis suggested greater effectiveness of person-directed interventions on reducing emotional exhaustion compared to organization-directed ones. They also found job training and education to be the most effective organizational

intervention type. Notably, the results of this meta-analysis are inconsistent with the conclusions and recommendations of more recent research that suggests that organizationally driven interventions are more effective approaches for reducing burnout. Another **2018 review** of interventions for physician burnout included 13 studies, of which four were randomized controlled trials. Most of these were focused on individual level interventions such as training in coping strategies, improving communications skills, and the use of relaxation techniques. However, intervention type varied considerably across the thirteen identified studies, making generalizable conclusions difficult. In fact, a **2021 systematic review** and meta-analysis that found small significant reductions in burnout among pooled interventions, but when disaggregated actually revealed lower reductions for individual, physician-directed interventions than organization-directed interventions. **An earlier, 2017 review** also examined both physician-directed and organization-directed controlled interventions across 19 included studies. The authors found small but significant reductions in burnout with the strongest reductions from organization-directed interventions. These organization-directed interventions included studies examining workload interventions (e.g., reductions in workload or rescheduling of hourly shifts) and a few studies exploring more extensive organization-led interventions such as creating additional meetings to enhance teamwork and leadership and other structural changes.

Other systematic reviews have focused on summarizing the effectiveness of a variety of interventions focused on reducing physician stress, a different but related concept to burnout. **One review** of psychosocial interventions across twenty-three studies found that cognitive behavioral interventions were effective at reducing stress. A **narrative review** found that successful interventions mirror leading drivers: organizational strategies such as locally developed practice modifications and increased support for clinical work were more effective than individually focused solutions such as mindfulness-based stress reduction or small-group programs.

Somewhat unique among reviews was one that focused exclusively on "**whole system interventions**" addressing one or more of the recommendations in an **earlier report** commissioned by the UK Department of Health. The authors defined such interventions as ones "that included all healthcare staff within a healthcare setting (e.g., whole hospital; whole unit, e.g., ward) in collective activities to improve physical or mental health or promote healthy [behaviors]." Eleven studies were included in the review and while engagement of management and board level staff were a prominent part of the earlier report's recommendations, upon which this review was based, this engagement was notably lacking from the interventions assessed. The authors noted this to be a particularly important gap that future research should address.

In 2020, the New England Journal of Medicine published a **national strategy to protect clinicians' well-being**. At the organizational level, the recommendations highlighted the integration of chief wellness officers or clinician well-being programs, establishing anonymous reporting mechanisms to encourage clinicians to advocate for themselves without fear of reprisal, and sustaining and supplementing existing well-being programs. At the national level, the report recommended allocating additional federal funding to set up a national tracking program to monitor clinician well-being and report the outcomes of established interventions. Similarly, the Department of Health in the United Kingdom commissioned **a review,** which highlighted the need for "whole system interventions" to address health care worker burnout in five areas: (1) understanding local staff needs; (2) staff engagement at all levels; (3) strong visible leadership; (4) support for health and well-being at senior management and board level; and (5) a focus on management capability and capacity to improve staff

Recognizing the urgent need to address burnout despite the limits in the knowledge base, health care systems have responded to the crisis and are implementing additional programs to address clinician burnout. Some, such as **HCA Healthcare** and **Trinity Health** are distributing caregiver and colleague wellness resources, emotional support programs, and counseling services. Others, such as **CommonSpirit Health** and **Trinity Health**, are working to improve the burden from electronic health records (EHRs) by making improvements to their systems' interoperability. **Trinity Health** is also expanding the scope of practice for registered nurses (RNs) and medical assistants (MAs) to allow physicians more time with patients. Still **others** are leveraging the work done by Mayo Clinic and Stanford and implementing the **Well-Being Index** or the **three-domain Stanford Model of Professional Fulfillment™** into their wellness program. The Mayo Clinic itself has implemented **numerous wellness programs**, including professional development opportunities, peer programming, and leadership training.

Focusing In: Understanding the Veterans Administration Context

With over nine million Veterans enrolled, the VHA is the nation's largest integrated health care system, and its mission is to honor America's Veterans by providing exceptional health care that improves their health and well-being. As such, VHA is in a unique position to test solutions and interventions across multiple levels of the organization. VHA has an annual budget of approximately $97 billion and employs approximately 380,000 full-time health care professionals and support staff. VHA uses a team-based model of care known as the Patient-Centered Medical Home model that includes **Patient Aligned Care Teams (PACT)**. VHA has 1,293 health care facilities, including 171 VA Medical Centers (VAMCs) and 1,112 outpatient sites of varying complexity. Additionally, VHA has 18 Veterans Integrated Service Networks (VISNs) which are regional systems of care working together to better meet local health care needs and provide greater access to care (see Figure 1 below). VISNs oversee VAMCs and Community-Based Outpatient Clinics and all policymaking, policy and practice implementation, and

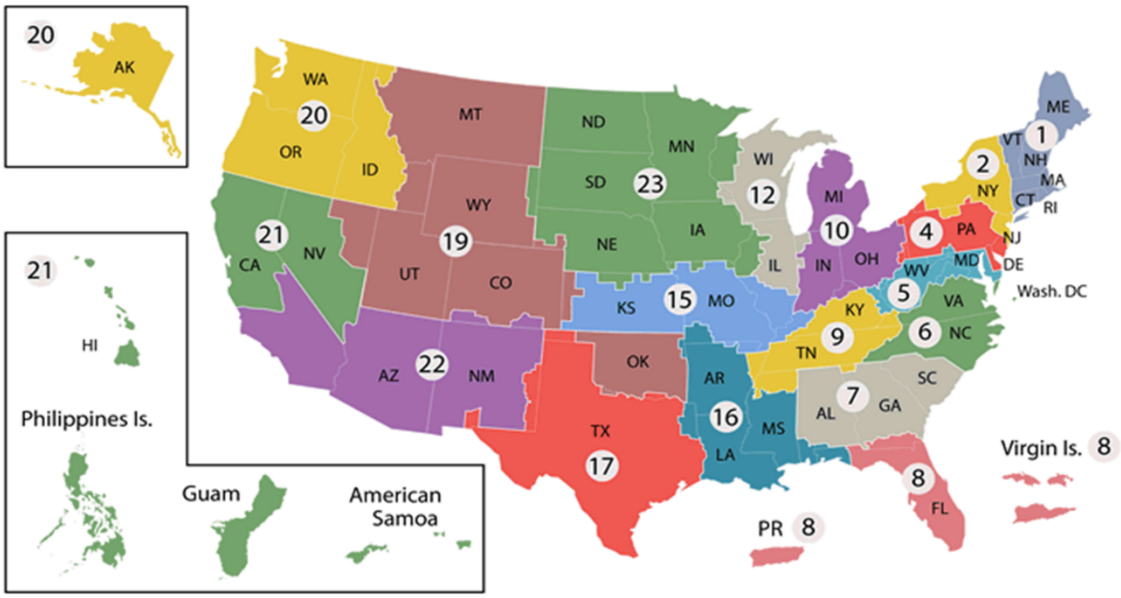


Figure 1: Map of Veterans Integrated Service Networks (VAMCs)[1]

performance agreements and incentives run through VISNs. Affiliated with over 1,800 unique educational institutions and 7,000 training programs, VHA is also the nation's largest provider of graduate medical education and is a major contributor to medical and scientific research. Over seventy percent of VA physicians have faculty appointments and spend some portion of their time in education and research activities.

To urgently address the burnout crisis, the VHA stood up the **Task Force to Reduce Employee Burnout and Optimize Organizational Thriving (REBOOT)**. The Task Force brought together key stakeholders across multiple levels of the organization, including front-line health care workers. REBOOT is working to address six major areas identified by employees including workload, fairness, harmony, values, job control, and recognition by improving the work environment and support for employee wellbeing (see Figure 2). REBOOT recently announced priority focus areas to be implemented in VHA for all employees. These priorities are based on the feedback that employees across the country provided, as well as identified opportunities where VHA could take action relatively quickly to benefit employees. The long-term goal of the Task Force is to institutionalize and sustain practices that ensure continuous improvement and a long-term focus on employee well-being.

In addition to the recent, targeted activities of the REBOOT initiative, the VA also has several national offices that work together to not only improve patient care, but also mitigate to improve patient care and more now, mitigate clinician burnout. The **Office of Quality and Patient Safety (QPS)** drives quality management, patient safety and analytic support in the VHA. QPS works with VISNs and VAMCs to foster a health care culture of providing consistent state-of-the-art health care delivery to ensure the best care possible for Veterans. The **Office of Research and Development** is tasked with improving Veterans' health and well-being through health care discovery and innovation and part of their work involves translating research findings into real-world improvements in care. The **National Center for Organization Development (NCOD)** offers programs and services to VA leaders at all levels to help them create a highly engaged workforce where employees want to work. NCOD also administers the **All-Employee Survey (AES)** which asks all VHA staff questions related to their current level of burnout. The **Office of Patient-Centered Care**

Figure 2: REBOOT Task Force Graphic

and Cultural Transformation Employee Whole Health (EWH) is established at every VAMC facility. EWH Offices are implemented to create strong collaborations with key stakeholders involved in employee engagement efforts. Finally, the Clinical Informatics and Data Management Office's Provider Workload Burden Integrated Project Team evaluates current clinical team experience with VHA's Electronic Health Record Management system and intervenes to reduce clinical team workload and burnout.

Despite the consensus in the literature about the leading drivers of clinician burnout as well as researcher and health care system's efforts to identify successful intervention strategies, further evaluation is necessary. **NASEM's 2019 research agenda** highlights the need for research to evaluate systems-based interventions and **RAND's literature review** highlights how the evidence base would benefit from an enhanced understanding of current initiatives as well as more reliable estimates of the prevalence and incidence of burnout in health care settings. These gaps in the literature highlight the urgent need for additional research on the design, implementation, and evaluation of existing interventions to better understand which are most effective, sustainable, and applicable across a variety of clinical settings. Enhancing the tools available to estimate the prevalence and incidence of burnout will allow more robust evaluations of programs' effectiveness over time. As health care systems within and external to the VA grapple with ongoing challenges such as COVID-19 and workforce shortages, the development of a research agenda identifying priority questions and closing existing gaps in the shared body of literature has never been timelier.

Approach and Participants

AcademyHealth, the professional home and leading national organization for health services researchers, policymakers, and health care practitioners and stakeholders, works to improve health and health care for all by advancing evidence to inform policy and practice. Leveraging its extensive membership network and strength as a convener, AcademyHealth brought together leading experts, including clinicians, researchers, health systems leaders, and VHA stakeholders, to contribute to this research agenda-setting activity.

AcademyHealth began by conducting a review of consensus documents published since 2018 to identify current discussions, frameworks, drivers, research, and efforts focused on addressing clinician burnout. In addition to online searches, the project team met with health systems leaders and other stakeholders to discuss approaches and interventions, barriers to successful implementation, and existing and needed data resources to better understand actions and efforts currently being implemented in the field.[2]

Clinician

Anyone trained and/or qualified to deliver direct patient care, within medicine, nursing, mental health, dentistry, and other disciplines.

In early 2022, AcademyHealth convened an expert Advisory Group[3] of seven leaders in the field to assist in defining an operating framework and research domains. The initial guiding framework for idea generation built off the **Stanford Model of Professional Fulfillment™** and is further detailed below.

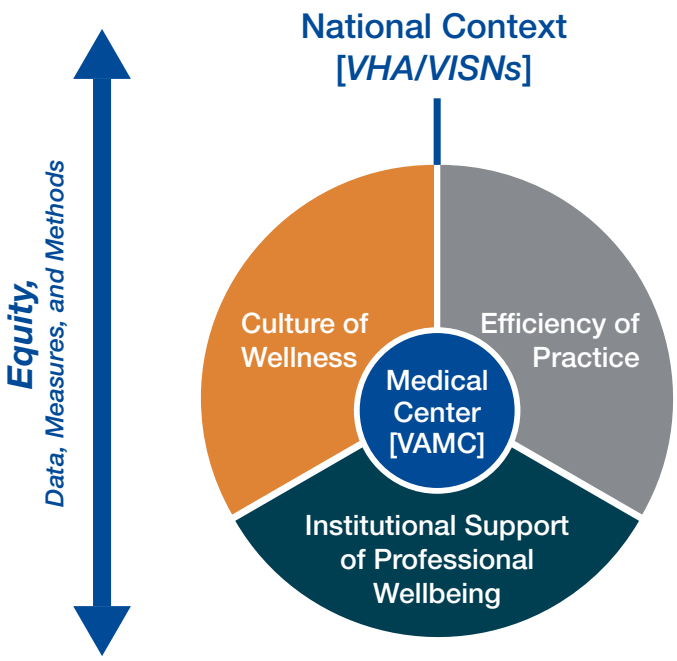
In May 2022, AcademyHealth convened 42 leading experts including but not limited to Advisory Group members, clinicians from a range of disciplines and practices settings, researchers, health care systems leaders, accreditation experts, VHA stakeholders, and funders.[4] During the three-hour virtual convening, stakeholders collaboratively and iteratively outlined key research questions and research infrastructure needs necessary to promote better evidence on clinician well-being and burnout prevention and mitigation.[5] Some of these were specific to the VA setting, however a majority were broadly relevant across other health care system settings.

The resulting questions and needs were prioritized by the same stakeholders in a subsequent asynchronous virtual exercise, using the **Codigital platform**. During a 14-day period, 29 individuals (69 percent of initial participants) engaged with the platform, editing and ranking research questions through a series of pairwise comparisons. This process was cumulative across participants, resulting in a prioritized list that reflects the collective ranking of those who participated.

Although the research agenda resulted from a collaborative effort across a diverse and broad array of expert stakeholders, it should not be seen as exhaustive. The priorities presented here are the result of an idea generation and prioritization activity, conducted in less than a year, which was therefore limited in both the number of participants and the time to reflect, discuss, and synthesize. As a result, these views are not necessarily representative of all health systems and researchers currently working to respond to rising rates of burnout. See Appendices B, C, and D for the full list of contributors to this effort.

Guiding Framework

Guiding Organizational Framework for a Research Agenda on Clinician Burnout in the VA*



*Framework & domain definitions are adopted from the Stanford Model of Professional Fulfillment™ Model: https://wellmd.stanford.edu/about/model-external.html

To ensure alignment with the prior work of the NAM and others, AcademyHealth collaborated with Advisory Group members to review existing frameworks and adapt the most relevant one for this project. The resultant guiding framework separated actions occurring nationally and regionally through central VA offices and VISNs and those occurring at individual VAMCs. In addition, it identified two cross-cutting considerations: (1) equity; and (2) measures, methods, and data. The framework is modified from the **Stanford Model of Professional Fulfillment™** and emphasizes the organizational dimensions that contribute to clinician well-being as well as accounts for the governmental structure of the VHA. Each domain and cross-cutting consideration is detailed below:

- **Context of National and Local Policy:** Inclusive of policies and programs implemented by VHA Central office (VHACO) and VISNs. For example, several national offices have direct responsibility for decisions that affect clinician burnout or provide resources to monitor staff needs, including NCOD and QPS offices.
- **Medical Center Context:** Inclusive of policies and programs implemented at VAMCs or other locally run health care settings, such as community-based outpatient clinics.
    - **Culture of Wellness:** Describes the organizational work environment, values, and behaviors that promote self-care, personal and professional growth, and compassion that clinicians and scientists have for themselves, their colleagues, and their patients and beneficiaries of their innovations.
        - Key success factors include leadership support commitment, and accountability for wellness; infrastructure and resources to support wellness; recognition and appreciation; fairness and inclusiveness; transparency and values alignment.
    - **Efficiency of Practice:** Workplace systems, processes, and practices that promote safety, quality, effectiveness, positive patient and colleague interactions, and work-life balance.
        - Key success factors include identification and redesign of inefficient work; involvement of clinicians in redesign of clinical processes and flows; teamwork models of practices; design of workspace for interpersonal proximity for improved communication; use of efficient communication methods to minimize e-mail time burden; designing roles to practice at top of licensure; streamlining EHR with other IT interfaces; realistic staffing and scheduling plans for predictable absences and periods of patient surge (e.g. flu season).
    - **Institutional Support of Professional Well-Being:** How the organization supports individual clinicians in the development and maintenance of the skills, behaviors, and attitudes that contribute to physical, emotional, and professional well-being
        - Key success factors include self-care assessment and support systems; safety net systems for crisis interventions; worksite evidence-based health promotion; encouragement of peer support; financial management counseling; life-needs support mechanisms (e.g., child and elder care, after-hours meals, etc.).
- **Cross-Cutting Considerations:**
    - **Equity:** There is growing evidence that bias of all kinds, including racism and sexism, in the workplace contributes to clinician burnout, especially in the last two years as health and care disparities — and the structures, policies, and processes that create and sustain them — have become more evident. These biases may be from other staff in the care setting and/or the patients and their families. In addition, throughout the agenda-setting activities, the project team promoted a focus on equity in how research questions were framed, the way studies were designed and executed, and the different populations and settings that were included.

- **Improving Research and its Impact:** In addition to identifying priority research questions, the team encouraged participants to discuss the tools needed to conduct the research, including new or adapted measures, appropriate methodologic approaches and their limitations and the various sources and types of data which may be necessary to conduct this research.

Preliminary review of the results of the initial stakeholder meeting made it clear that there were sufficient questions raised related to the cross-cutting consideration *Measures, Methods, and Data* to warrant creation of a separate category. Thus, the final research questions are grouped into the following five domains: (1) Context of National and Local Policy; (2) Medical Center - Culture of Wellness; (3) Medical Center - Efficiency of Practice; (4) Medical Center - Support of Professional Well-Being; and (5) Improving Research and Its Impact. Equity was a key cross-cutting consideration that was integrated into the development and refinement of questions across each of the five domains.

Priority Research Questions Within the Five Domains

The sections that follow discuss the refined sets of priorities within each of the five domains for research and evaluation projects that emerged from the agenda-setting process detailed above. The prioritization occurs within each domain—no attempt was made to prioritize across domains. Although some questions are cross-cutting and therefore could easily have fit into another domain, questions are presented here in the domain in which they were ranked in comparison to others within that domain.

Context of National and Local Policy

Participants identified 18 research questions that were most relevant at the VHACO or VISN level and this domain also generated the highest levels of engagement during the Codigital prioritization. The top ten questions in the Context of National and Local Policy domain emphasized the variability in the drivers of burnout across clinical specialty, care setting, and provider demographic, and the importance of having national strategies that allowed adaptability in implementation to meet local needs. Questions also examined factors that lead to successful programs, evaluation strategies and strategies to de-implement outdated or ineffective programs, leadership support, and equity.

Top 10 Questions in the Context of National and Local Policy

1. Drivers and lived experiences of burnout vary across a variety of factors, including clinical specialty, care setting, age, and racial, ethnic, and gender identity of the provider, to name a few. What implementation strategies ensure flexible adoption of interventions so that local leaders can adapt policies to the specific needs of their clinicians and local context?
    a. How can we use change management and human-centered design to ensure that the research and implementation of interventions supports the understanding of drivers and causes of burnout?
    b. How can we ensure that research and implementation of interventions accommodates differences in drivers of burnout across facility, region, patient population, etc.?
2. What aspects of clinician administrative workload can be offloaded and/or centralized to reduce workload burden on clinicians without spreading burnout among other staff? How can we track, measure, and evaluate the impact of this intervention?
3. What factors lead to success [or failure] when standing up new programs to address clinician burnout? What implementation strategies and resources lead some programs to become more effective at reducing burnout than others?
4. How is the VHA determining whether their programs/initiatives are imposing additional requirements on clinicians? How is this being evaluated and then used to adjust program requirements?
5. What strategies can the VHA employ to de-implement outdated and/or ineffective programs and interventions?
6. How do policies enabling clinicians to practice to the full extent of their licensure get implemented and supported across practices vary? How can the VHA promote use of staff more efficiently?
7. What is the role of health care organizations (e.g., VHA and VISNs) in providing an equitable distribution of resources to end users and implementing initiatives? For example, are certain specialties or roles receiving more support than others? How can leaders (at VHA and VISNs) ensure equitable resource distribution and accountability?
8. How can the VHA and VISNs support leaders at local medical centers? How can the VHA and VISNs support newly promoted leadership and ensure that they can promote a culture of well-being, as defined by the Stanford Model of Professional Fulfillment?
9. What strategies can the VHA implement to enhance recruitment of a diverse set of individuals and improve retention?
10. How can the VHA and VISNs encourage local leaders to implement interventions such as Patient Aligned Care Teams (PACTs) and ensure consistent implementation across all medical centers?
    a. What barriers exist at the leadership level that prevent medical centers having fully staffed PACT teams?

Medical Center Context: Culture of Wellness

The first of three domains focused on the individual VAMCs, the Culture of Wellness domain included 19 questions focused on the organizational work environment and the implemented values and behaviors that enable clinicians to experience joy in work. The top ten questions focused on how organizational leadership support employees, opportunities for meaningful work, promotion of equity and eliminating bias in the workplace, enhancing the psychological safety[6] of clinicians, and strategies to hold leaders accountable and provide pathways for feedback.

Top 10 Questions in Culture of Wellness	
1	How do sites address issues such as equity and bias in the workplace, psychological safety, and fear of disclosure? What interventions have proven success at enhancing clinician's perceptions of psychological safety at work? How can effective interventions get implemented at a larger scale? How can well-being leaders/offices, diversity, equity, and inclusion (DEI) leaders/offices and unit leaders (department chairs/section or division chiefs, etc.) effectively work together to address these issues?
2	How do organizations support the professional well-being of staff at all levels, including administrative staff who are booking appointments, members of the operations teams, medical assistants (MAs), etc.? How effective are these strategies? How are these efforts integrated into the larger well-being and support strategy?
3	Identify ways to study and identify what clinicians consider meaningful work and ways organizations can enhance opportunities to perform these activities while minimizing other (e.g., administrative) burdens.
4	How can organizations increase rewarding work and decrease lesser value activities?
5	How can health systems hold leaders accountable to feedback gleaned from annual employee wellness and other surveys in a way that encourages change and does not appear as punitive?
6	How do clinicians describe what burnout is, signs of burnout, and ways to seek help? a. Does this vary by age, race or gender identity, care setting, or specialty? b. Do different clinicians prefer to use different terminology to refer to burnout (e.g., exhaustion, moral distress,[7] moral injury,[8] etc.)?
7	How easy is it for clinicians to provide feedback to supervisors and organizational leadership? Are these pathways being utilized?
8	How can sites integrate tenets of servant leadership into training programs for mentors and team leaders? a. Evaluate if and how servant leadership fosters a culture of wellness and enhances leaders' engagement with their teams?
9	How can organizations integrate clinician perspectives at all organizational levels into the development and use of performance measures?
10	What is the effectiveness of Chief Wellness Officers (CWOs) – and under what conditions – at organizations that have added these positions? Which process or outcome measures are CWOs being held accountable for?

Medical Center Context: Efficiency of Practice

With the most questions (28) and highest consensus among participating stakeholders of all the domains, Efficiency of Practice questions examined the impact of workplace systems, processes, and practices on clinician burnout and well-being. The top ten questions highlighted effective staffing and team models, impact of factors such as administrative burden and technological transitions on staff burnout, and outcomes measures to assess the efficiency of workflows.

Top 10 Questions in Efficiency of Practice	
1	What is the relative impact of individual workflow inputs (e.g., pre-visit planning or lab testing) and teamwork inputs (e.g., team structure or skill level) on outcomes such as capacity for patient care, quality, satisfaction, and costs as well as on patient scheduled hours to total work ratio?
2	What range and/or mix of team skills is most effective in a range of clinical settings (i.e., two registered nurses (RNs) to one Doctor of Medicine (MD) or one RN and one medical assistant (MA) to one MD)? Does the ideal team structure vary if the team is led by a nurse practitioner (NP), a physician associate (PA), or a MD?
3	What strategies are effective at reducing administrative burden on providers?
4	What are attributes of high functioning teams? These can be structural attributes, such as team size and skill level, or behavioral attributes, such as venues for communication (i.e., team meetings, daily huddles) and techniques of communication (creating psychological safety; transparency).
5	What is the ideal number of team staff and roles to sufficiently address patient volume and care complexity? a. How can health care organizations use data to anticipate clinical need and volume and proactively hire the right staff for the positions to address these needs?
6	How does the VA's transition to the implementation of Cerner impact the following: a. Burnout? b. Teamwork? c. Workload and cognitive workload? d. Time required for documentation, inbox, and other tasks such as visit coding, medication reconciliation, and development of situational awareness? e. Work outside of scheduled work hours? f. Retention (i.e., intent to leave; intent to reduce clinical effort)? g. Health care worker's assessment of the quality of care they can provide to their patients?
7	What do care team members consider low-value activities in their daily work? What is the sludge that slows them down and holds them back?
8	Does team stability (i.e., the same small team of MAs/RNs working with the same MD every day) impact outcomes such as quality, capacity, and satisfaction?
9	Incorporate other outcomes measures, beyond productivity, to evaluate efficiency of practice.
10	What is the relationship between the number of hours worked outside of work hours and clinician burnout? Are the data to examine this being tracked?

Medical Center Context: Support of Professional Well-Being

Questions in this domain emphasized how organizations can support the development of the individual skills, behaviors, and attitudes that contribute to physical, emotional, and professional well-being. The top ten questions largely focused on organizational support of clinician's mental health and psychological safety, ensuring clinicians have protected time to take advantage of offerings such as therapy or wellness activities, and ways to determine the most effective strategies to structure and deliver these interventions.

Top 10 Questions in Institutional Support of Professional Well-Being
1 How can organizations reduce the stigma of clinicians seeking help to deal with mental health issues? How can we assess the impact of interventions on stigma reduction on clinicians and their utilization of mental health resources?
2 How are VA Medical Centers ensuring clinicians have protected time to access services such as therapy? What structure of protected time is most effective for a range of clinicians?
3 In the long term, which methods of offering therapy services to employees improve the experience of care (burnout), systems outcomes (turnover), and patient outcomes? Does this vary by specialty, demographic, or care setting?
4 What has been the impact of peer support and professional mentoring on clinician burnout? Are there differences by age, racial and gender identity, etc.?
5 What strategies can organizations implement to ensure that their employees' psychological safety is prioritized?
6 What is the most effective way to provide wellness and crisis support to staff experiencing moral distress? a. Are organizations implementing measurements of moral distress and moral injury?
7 How have the drivers of clinician burnout been impacted and/or exacerbated by COVID-19? Are interventions being designed or altered to address these changes?
8 Are there mechanisms in place to allow physicians, nurse practitioners (NPs), and physician associate (PAs) to be fully "off work" while on vacation, or are they compelled by social norms or other factors to work during scheduled time off? a. Is "incomplete vacation" or "work while on vacation" tracked, aggregated, and addressed at a leadership level?
9 Are clinicians being supported for the moral distress experienced by working with patients who may be experiencing end of life situations, etc.? How has moral distress been exacerbated by COVID-19?
10 Which methods of offering therapy services (through the VA, a third party, etc.) are most effective and lead to the appropriate use of mental health care and improved mental health outcomes?

Improving Research and Its Impact

Participants recognized the need for improvements in the research itself, including the underlying data and measure needs as well as more effective dissemination and implementation approaches. The top ten questions in this domain focused on data and measurement strategies for qualitative experiences such as burnout and psychological safety, new data resources that are needed to conduct studies on aspects of burnout such as administrative burden, replicability of existing interventions, ways to communicate findings to a broad audience to promote uptake, and incentive programs.

Top 10 Questions for Improving Research and Its Impact	
1	What data are needed for studies to understand administrative burden on clinicians and its contribution to burnout?
2	What existing data can the VHA use to effectively assess workforce capacity needs? How can the VHA strengthen its ability to translate data into policy development and implementation?
3	How can health care organizations learn from clinicians who are not experiencing burnout? a. Why do some groups thrive from a particular experience and others do not?
4	What strategies help health care organizations recognize how and what to measure to understand their organization's burnout? What strategies can organizational leaders use to evaluate program effectiveness and make necessary changes?
5	How can researchers make research on burnout more impactful? What strategies can be used to conduct research that is large-scale enough to be generalizable across all VHA sites?
6	How can incentive programs be used to implement policies to reduce burnout? Are incentive programs (e.g., financial incentives if a site reduces burnout by 25%) effective at reducing burnout at specific sites while enabling flexible approaches that meet specific site needs?
7	Implement controlled studies on preventing burnout in a way that can be easily replicated across organizations (e.g., VA Medical Centers).
8	How can VHA support individual medical centers share best practices and programs that are effective in reducing and eliminating burnout?
9	What is the most effective way to measure and quantify clinicians' experience of psychological safety?
10	How can organizations leverage payment models to incentivize team-based care rather than individual, physician-provided services typically seen in fee-for-service models?

Cross-Cutting Themes

An intentional design principle in the development of this agenda was attention to the multitude of ways in which clinician burnout varies among the many dimensions of equity, including the demographic characteristics of the clinician. As noted in the introduction, further research is needed to understand the differential drivers, experiences, and outcomes of clinician burnout among underrepresented groups. As a result, questions were asked about the impact of Diversity, Equity, and Inclusion (DEI) policies on workplace culture, education of local leaders on DEI initiatives, interventions addressing bias in the workplace, as well as equitable distribution of workload and support of professional well-being across all levels of staff. Additionally, questions acknowledged the variability in the drivers of clinician burnout and recognized that burnout may look different based on care and clinical setting and provider demographics. Participants highlighted the need to create interventions that were adaptable to this variability and local medical center needs.

Two additional cross-cutting themes emerged from the five domains. First, the instrumental role of leadership at both the national level and within individual medical centers. Some priority questions examined leadership training and whether training is standardized, leadership pathways, integration of servant leadership tenants, pathways to provide leaders with feedback, team relationships, how leaders can most effectively provide clinicians with a welcoming and supportive environment, and leaders' role in supporting clinician's psychological safety. Of note, it is important to integrate DEI training into professional development so that it is a promotion within part of these leadership pathway throughout a range of VA contexts. A final set of questions across domains focused on the need to enhance the accountability of local and national leadership to monitor interventions and metrics, address unintended consequences of new policies and programs, and de-implement outdated and/or ineffective programs.

Second, it is critical to better understand and develop effective models of staff deployment and how to reduce administrative burden on clinicians. Priority questions discussed what mix of team skills are most effective in a range of clinical settings, ideal team structure, attributes of high-functioning teams, staffing models that could be implemented to anticipate clinical need and avoid staffing shortages, and team stability. As is often highlighted in the literature as one of the drivers of clinician burnout, low-value administrative burden appeared across numerous priority research questions. Questions included effective strategies to reduce administrative burden, such as offloading certain tasks to other organizational departments, the impact of the VHA's upcoming transition to Cerner on clinician burnout, and the need for additional data and measurement techniques to better understand administrative burden on clinicians.

Discussion

This prioritized research agenda builds on existing work and makes clear the imperative and opportunity for VA HSR&D to support an effective VA response to the crisis of clinician burnout by supporting research on system level interventions in the VA. The range of question and topics identified provide guidance to the VA on the most pressing issues facing health system leaders within the VA and in other health care systems and the types of evidence they need to prevent and reduce clinician burnout.

Key Points:

The resulting prioritized agenda makes clear that while existing evidence supports immediate action by all levels of the VHA in response to the recommendations put forth by the REBOOT Task Force, many questions remain about the most effective and sustainable approaches and the distributional impacts of any changes made. Thus, substantial investments in health services research are needed to continue to guide the VA's actions, investments, evaluations, and commitment to reducing clinician burnout.

Key recommendations:

- **Prioritize research on interventions to address burnout at the organization or system levels.** The biggest gap in the existing evidence base on clinician burnout is not its drivers or causes, but how to effectively address it across teams, divisions, and whole systems.
- **Capitalize on the variation between** VAMCs to study the comparative effectiveness and costs of interventions to address burnout, specifically which approaches work for whom and under which circumstances. Also, there is the opportunity to learn from "positive deviants," identifying VAMCs with low rates of clinician burnout, and leveraging their approaches at an organizational level for testing at other facilities.
- **Leverage the VA's ability to conduct large, controlled studies across sites** and/or clinician types, particularly for "whole system interventions" with varying components. Findings should be widely disseminated and implemented across VA sites to share their learnings with health systems nationally and globally.
- **Focus on the effectiveness of burnout interventions on clinicians of color and other dimensions of diversity and identity** that affect the clinician's interactions with healthcare staff and patients. This is a salient gap in the evidence.
- **Include studies on the role of effective VA leadership (from senior leaders to supervisors of frontline staff)**, including strategies for leadership training and support, trust in leadership, and approaches for leaders to create and sustain a welcoming and supportive culture were all aspects of the priority questions.

Building off **NASEM's 2019 research agenda**, the questions identified in this report further NASEM's category of building a research base to evaluate systems-based interventions. Specifically, questions in this report seek to generate evidence on which interventions have been most effective in which care settings and for which types of providers. This report also complements the recently-released **priorities** from **NAM's National Plan for Health Workforce Well-Being**. The National Plan includes seven priority areas, including "Investing in measurement, assessment, strategies, and research. Questions identified in this report directly address NAM's priorities of positive work, learning environments, and culture, measurement, assessment, and strategies of research of well-being, as well as mental health and stigma.

Our approach emphasized the need to better understand the full range of actions and interventions that need to be designed, tested, and implemented at multiple levels. In addition to calling out actions at the national VA level and at individual VAMCs, the prioritized questions call out the need to understand the differential impact of interventions at the department, practice, and unit level. In addition, while the focus of this effort was on clinician burnout, priority research questions focused on the level of health system administrators and leaders also emerged. In fact, a **recent survey** of members of the American College of Healthcare Executives found one third of participants had burnout scores that fell in the high, unfavorable range, despite mean scores on professional fulfillment that were generally high – certainly higher than physician averages.

Our approach also entailed a modification – with permission – of one of the domains in the **Stanford Well Model of Professional Fufillment™** from "personal resilience" to "institutional support for professional well-being." While the evidence to date points to small to moderate effectiveness of clinician-directed interventions such as resilience or coping strategies, the members of the advisory committee felt it was essential for the VA to hone its focus on institutional-focused interventions. The resulting research questions include several opportunities for health system leaders to develop and evaluate policies and practices that directly address organizational culture and may result in improved professional and health system outcomes.

It is noteworthy that this priority setting effort also resulted in priorities for improving the research itself, including a focus on the data needed to support intervention studies, which measures are most appropriate for which settings as well as measurement gaps, and how to more effectively disseminate and scale effective interventions. The need for better measurement was also called out in the NAM National Plan in two areas: first, that "metrics to assess the prevalence of burnout need to be harmonized with organizational efforts around employee engagement and satisfaction" and second, that the measurement and assessment of core leadership behaviors. The NAM National Plan also underscored the need for research on strategies to improve health worker well-being as well as the creation of a national registry of evidence-based interventions, something the VA could consider engaging in as a partner.

Challenges in the quality of existing studies were also noted in prior systematic reviews. The **2018 review** of psychosocial interventions found that the quality of the studies was often weak: only twelve of the twenty-three articles supported estimating pre-post effects, only four had active control conditions, many had underpowered samples, and several lacked detail in reporting their statistical analyses and consistency in reporting treatment outcomes. In fact, the authors concluded that "while psychosocial interventions may offer promise, recommendations regarding their use cannot yet be made with confidence." Eighteen of the nineteen studies in **another review** were randomized clinical trials of interventions to reduce physician burnout which enabled the authors to estimate heterogeneity levels and publication bias. However, the authors noted that the wide variation in the content of interventions and length of follow-up among the included studies limited their ability to make broad conclusions about the overall effectiveness of the interventions. In the review of **organization-wide interventions**, the overall quality of studies was noted to be poor due to low reliability and variable outcome measures, lack of controls, high attrition rates, and variable follow-up rates. None of the studies described the interventions in sufficient detail to allow for replication. Finally, the authors noted that due to the variable nature of implementation across systems, they were unable to assess the effectiveness of different patterns of whole-system recommendation implementation.

As discussed, the drivers and causes of burnout are well-established and thematically similar across clinician occupations. Given this state of the current body of literature, the VA has a unique opportunity to address current gaps in research and substantially improve the evidence on *interventions* to address and prevent clinician burnout. For example, given the variability in the measures used and the weaknesses of the data collected in prior studies, the VA can enhance measurement and support sub-group analyses to better understand the impact of interventions by clinician type and/or setting through expanding their existing data collection methods (such as the AES).

The flexibility and dedication participants demonstrated to contribute to this idea-sourcing and prioritization activity underscore the value and importance of collaborative efforts in the national response to the clinician burnout crisis. These results will hopefully spur funders, including but not limited to the VA, to promptly launch new research initiatives and work collaboratively with leaders in health systems to implement a coordinated, intentional funding strategy around workforce wellbeing.

For more information about the report and methodology, please contact **info@academyhealth.org**.

Appendix A: Full List of Prioritized Research Questions in Each Domain

Context of National and Local Policy
1. Drivers and lived experiences of burnout vary across a variety of factors, including clinical specialty, care setting, age, and racial, ethnic, and gender identity of the provider, to name a few. What implementation strategies ensure flexible adoption of interventions so that local leaders can adapt policies to the specific needs of their clinicians and local context? a. How can we use change management and human-centered design to ensure that the research and implementation of interventions supports the understanding of drivers/causes of burnout? b. How can we ensure that research and implementation of interventions accommodates differences in drivers of burnout across facility, region, patient population, etc.?
2. What aspects of clinician administrative workload can be offloaded and/or centralized to reduce workload burden on clinicians without spreading burnout among other staff? How can we track, measure, and evaluate the impact of this intervention?
3. What factors lead to success [or failure] when standing up new programs to address clinician burnout? What implementation strategies and resources lead some programs to become more effective at reducing burnout than others?
4. How is the VHA determining whether their programs/initiatives are imposing additional requirements on clinicians? How is this being evaluated and then used to adjust program requirements?
5. What strategies can the VHA employ to de-implement outdated and/or ineffective programs and interventions?
6. How do policies enabling clinicians to practice to the full extent of their licensure get implemented and supported across practices vary? How can the VHA promote use of staff more efficiently?
7. What is the role of health care organizations (e.g., VHA and VISNs) in providing an equitable distribution of resources to end users and implementing initiatives? For example, are certain specialties or roles receiving more support than others? How can leaders (at VHA and VISNs) ensure equitable resource distribution and accountability?
8. How can the VHA and VISNs support leaders at local medical centers? How can the VHA and VISNs support newly promoted leadership and ensure that they can promote a culture of well-being, as defined by the Stanford Model of Professional Fulfillment?
9. What strategies can the VHA implement to enhance recruitment of a diverse set of individuals and improve retention?
10. How can the VHA and VISNs encourage local leaders to implement interventions such as Patient Aligned Care Teams (PACTs) and ensure consistent implementation across all medical centers? a. What barriers exist at the leadership level that prevent medical centers having fully staffed PACT teams?
11. How do we engage clinicians who have evolved from burnout to give insights on their experience and help define particulars for their specialty and work setting?
12. How can the VHA set the tone of expectations for a welcoming, equitable, just, and supportive environment?
13. How is the VHA creating equitable career pathways for employees at all levels?
14. What impact have C-Suite leadership actions and inactions regarding Diversity, Equity, and Inclusion (DEI) had on workplace culture (e.g., individual's responses to microaggressions, bias in the workplace, policies contributing to inequitable practices, moral injury of clinicians, etc.)?
15. How can the VHA's National DEI Leader and Harassment Prevention Lead fit into the larger organizational context and educate operational leads to create a culture of well-being?
16. Are there opportunities for clinician workload to be offloaded to the VHA Human Resource services?
17. Identify and understand where communications breakdowns exist between local medical centers, Veterans Integrated Service Networks (VISNs), and the VHA Central Office (VHACO).
18. Should evaluations and solutions be specialty specific?

Culture of Wellness

1. How do sites address issues such as equity and bias in the workplace, psychological safety, and fear of disclosure? What interventions have proven success at enhancing clinician's perceptions of psychological safety at work? How can effective interventions get implemented at a larger scale? How can well-being leaders/offices, diversity, equity, and inclusion (DEI) leaders/offices and unit leaders (department chairs/section or division chiefs, etc.) effectively work together to address these issues?
2. How do organizations support the professional well-being of staff at all levels, including administrative staff who are booking appointments, members of the operations teams, medical assistants (MAs), etc.? How effective are these strategies? How are these efforts integrated into the larger well-being and support strategy?
3. Identify ways to study and identify what clinicians consider meaningful work and ways organizations can enhance opportunities to perform these activities while minimizing other (e.g., administrative) burdens.
4. How can organizations increase rewarding work and decrease lesser value activities?
5. How can health systems hold leaders accountable to feedback gleaned from annual employee wellness and other surveys in a way that encourages change and does not appear as punitive?
6. How do clinicians describe what burnout is, signs of burnout, and ways to seek help?
    a. Does this vary by age, race or gender identity, care setting, or specialty?
    b. Do different clinicians prefer to use different terminology to refer to burnout (e.g., exhaustion, moral distress, moral injury, etc.)?
7. How easy is it for clinicians to provide feedback to supervisors and organizational leadership? Are these pathways being utilized?
8. How can sites integrate tenets of servant leadership into training programs for mentors and team leaders?
    a. Evaluate if and how servant leadership fosters a culture of wellness and enhances leaders' engagement with their teams?
9. How can organizations integrate clinician perspectives at all organizational levels into the development and use of performance measures?
10. What is the effectiveness of Chief Wellness Officers (CWOs) – and under what conditions – at organizations that have added these positions? Which process or outcome measures are CWOs being held accountable for?
11. Are middle and frontline managers receiving burnout and well-being interventions as intensively as senior management? Which strategies work best for each level of management?
12. How does the VHA hold organizational leaders accountable to use evidence to create interventions and programs?
13. Are opportunities for professional development equitably provided to team members across all organizational levels (entry level to senior level)?
14. How can organizations adapt their strategies to meet changing external environmental conditions including political divisions, misinformation and mistrust in medicine, COVID-19, and increasing instances of aggressions towards medical providers?
15. How do sites train mentors and team leaders? Do they use a standardized approach across all medical centers and organizational levels?
16. What existing practices are effective at building or rebuilding trust in health care systems?
17. How do leaders become more trustworthy for those they lead? How do you evaluate trustworthiness for leaders?
18. How can wellness strategies incorporate the broader community outside of the health care system? Does this contribute to reductions in medical mistrust?
19. How do individual VA units and the VA system at large increase trust among their patients?

Efficiency of Practice

1. What is the relative impact of individual workflow inputs (e.g., pre-visit planning or lab testing) and teamwork inputs (e.g., team structure or skill level) on outcomes such as capacity for patient care, quality, satisfaction, and costs as well as on patient scheduled hours to total work ratio?
2. What range and/or mix of team skills is most effective in a range of clinical settings (i.e., two registered nurses (RNs) to one Doctor of Medicine (MD) or one RN and one medical assistant (MA) to one MD)? Does the ideal team structure vary if the team is led by a nurse practitioner (NP), a physician associate (PA), or a MD?
3. What strategies are effective at reducing administrative burden on providers?
4. What are attributes of high functioning teams? These can be structural attributes, such as team size and skill level, or behavioral attributes, such as venues for communication (i.e., team meetings, daily huddles) and techniques of communication (creating psychological safety; transparency).
5. What is the ideal number of team staff and roles to sufficiently address patient volume and care complexity?
    a. How can health care organizations use data to anticipate clinical need and volume and proactively hire the right staff for the positions to address these needs?
6. How does the VA's transition to the implementation of Cerner impact the following:
    a. Burnout?
    b. Teamwork?
    c. Workload and cognitive workload?
    d. Time required for documentation, inbox, and other tasks such as visit coding, medication reconciliation, and development of situational awareness?
    e. Work outside of scheduled work hours?
    f. Retention (i.e., intent to leave; intent to reduce clinical effort)?
    g. Health care worker's assessment of the quality of care they can provide to their patients?
7. What do care team members consider low-value activities in their daily work? What is the sludge that slows them down and holds them back?
8. Does team stability (i.e., the same small team of MAs/RNs working with the same MD every day) impact outcomes such as quality, capacity, and satisfaction?
9. Incorporate other outcomes measures, beyond productivity, to evaluate efficiency of practice.
10. What is the relationship between the number of hours worked outside of work hours and clinician burnout? Are the data to examine this being tracked?
11. How can medical centers provide increased stability and promote relationship building among teams? For example, are formal huddles and informal chat times effective ways to promote team relationships?
12. To what extent do medical centers allow clinicians to practice to the full extent of their licensure? Does this vary by site, specialty, and care setting?
13. What are the viable models to prevent staffing shortages? Is staffing to 100% of the fully staffed model systematic understaffing, since on any given day a predictable number of staff (10-20%) will be absent because of illness, vacation, meetings, etc.?
14. Evaluate the impact of increased virtual care and telehealth on clinician time requirements and on burnout.
15. How are organizations ensuring that workload is distributed equitably among physicians and other specialties? Are there organizational policies in place that may prevent workload from being inequitably redistributed?

Efficiency of Practice (*Continued*)
16. What is the ratio of patient scheduled hours (PSH) to total work (TW)? For example, credible evidence suggests that outside of the VA this PSH:TW ratio is 1:2.
17. How do infrastructure changes (i.e., a large monitor, a printer in every room, three exam rooms per physician, scheduling on a wave, prioritizing continuity between patient and physician) impact practice efficiency, daily patient capacity, access, and clinician satisfaction/burnout?
18. How do different approaches to change management impact the effectiveness of an intervention? How does centralized design and testing of a workflow or team model compare with local design and testing in terms of the desired outcomes, such as satisfaction/burnout, quality, capacity, etc.?
19. What leadership approaches (i.e., central standardization of processes vs. local customization of processes) improve team relationships?
20. Do interventions targeting workload fairly redistribute it? How are these interventions evaluated and adjusted based on potential unintended consequences of moving excess workload from one specialty to another? (e.g., transitioning primary care physician (PCP) workload to nurses may increase nurse burnout)
21. What is the ideal team size and structure? Does this vary by clinical specialty or care setting?
22. How can organizations develop and share resources that detail the administrative component that contributes to provider burnout?
23. How has COVID-19 impacted professional relationships? What impact have these changing relationships had on clinician burnout?
24. Can medical centers schedule for predictable life events to ensure care teams are not short staffed?
25. Are improvements in burnout and increased meaning in work for one role/specialty type associated with improvements in these factors for nearby and/or related roles/specialty types?
26. What tools or mechanisms can be implemented to improve team meeting efficiency?
27. What are the ideal approaches to patient scheduling (i.e., scheduling rigid time blocks vs. scheduling on a wave)?
28. How have increased resident hours impacted burnout among residents?

Institutional Support of Professional Well-Being
1. How can organizations reduce the stigma of clinicians seeking help to deal with mental health issues? How can we assess the impact of interventions on stigma reduction on clinicians and their utilization of mental health resources?
2. How are VA Medical Centers ensuring clinicians have protected time to access services such as therapy? What structure of protected time is most effective for a range of clinicians?
3. In the long term, which methods of offering therapy services to employees improve the experience of care (burnout), systems outcomes (turnover), and patient outcomes? Does this vary by specialty, demographic, or care setting?
4. What has been the impact of peer support and professional mentoring on clinician burnout? Are there differences by age, racial and gender identity, etc.?
5. What strategies can organizations implement to ensure that their employees' psychological safety is prioritized?
6. What is the most effective way to provide wellness and crisis support to staff experiencing moral distress? a. Are organizations implementing measurements of moral distress and moral injury?
7. How have the drivers of clinician burnout been impacted and/or exacerbated by COVID-19? Are interventions being designed or altered to address these changes?
8. Are there mechanisms in place to allow physicians, nurse practitioners (NPs), and physician associates (PAs) to be fully "off work" while on vacation, or are they compelled by social norms or other factors to work during scheduled time off? a. Is "incomplete vacation" or "work while on vacation" tracked, aggregated, and addressed at a leadership level?
9. Are clinicians being supported for the moral distress experienced by working with patients who may be experiencing end of life situations, etc.? How has moral distress been exacerbated by COVID-19?
10. Which methods of offering therapy services (through the VA, a third party, etc.) are most effective and lead to the appropriate use of mental health care and improved mental health outcomes?
11. Are clinicians encouraged to use the full amount of allotted vacation? Does the organization track and report rates of full vacation utilization?

Improving Research and Its Impact
1. What data are needed for studies to understand administrative burden on clinicians and its contribution to burnout?
2. What existing data can the VHA use to effectively assess workforce capacity needs? Where can the VHA strengthen its ability to translate data into policy development and implementation?
3. How can health care organizations learn from clinicians who are not experiencing burnout? a. Why do some groups thrive from a particular experience and others do not?
4. What strategies help health care organizations recognize how and what to measure to understand their organization's burnout? What strategies can organizational leaders use to evaluate program effectiveness and make necessary changes?
5. How can researchers make research on burnout more impactful? What strategies can be used to conduct research that is large-scale enough to be generalizable across all VHA sites?
6. How can incentive programs be used to implement policies to reduce burnout? Are incentive programs (e.g., financial incentives if a site reduces burnout by 25%) effective at reducing burnout at specific sites while enabling flexible approaches that meet specific site needs?
7. Implement controlled studies on preventing burnout in a way that can be easily replicated across organizations (e.g., VA Medical Centers).
8. How can VHA support individual medical centers share best practices and programs that are effective in reducing and eliminating burnout?
9. What is the most effective way to measure and quantify clinicians' experience of psychological safety?
10. How can organizations leverage payment models to incentivize team-based care rather than individual, physician-provided services typically seen in fee-for-service models?
11. How are programs and campaigns that address mental health of clinicians being evaluated?
12. What is a data monitoring approach to study both intended and unintended consequences of an intervention that relies on clinician incentives?
13. How can health care organizations measure moral injury among clinicians? What interventions are effective at reducing moral injury among clinicians?
14. What is the ideal level of granularity and frequency with which organizations (including the VHA) should be collecting data on clinician well-being?
15. What is the most effective way to measure the leadership skills that optimize clinician well-being and joy in work across multiple organizational levels?
16. Many individuals are experiencing survey fatigue. What is the most effective way to collect employee feedback (e.g., annual surveys, pulse surveys, focus groups, individual interviews)? a. Does this vary by clinician specialty, demographic, and/or care setting?
17. Are there ways to quantify medical center performance beyond volume of patient encounters?
18. Are there process measures organizations can use to determine how long it might take for a particular intervention to have an impact on clinician burnout?
19. How are organizations collecting data on the personal life responsibilities that contribute to burnout? Is this data being used in a way that promotes increasing flexibility and prioritizes clinician mental health?
20. How can the VHA involve quality forums to establish standard measures related to burnout?
21. What strategies can the VHA and Veteran Integrated Service Networks (VISNs) implement to incentivize meaningful patient interactions?
22. How can Natural Language Processing be leveraged to enhance analysis of transcribed interviews?

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Appendix E: Stakeholder Convening Agenda

Clinician Burnout Stakeholder Convening:

Developing a Research Agenda on Clinician Burnout

Meeting Agenda

In partnership with VA Health Services Research and Development (VA HSR&D), AcademyHealth is leveraging a collaborative approach to generate a set of priority topic areas and questions to develop a research agenda on clinician burnout.

Although many drivers of provider burnout are well-understood, additional new challenges, including increased workplace stress and personal anxiety due to changes in workflow and care delivery models driven by COVID-19, and other societal factors, such as increased recognition and visibility of health disparities, heighten the need for evidence-based solutions. In response to this need, AcademyHealth and the Veteran's Administration (VA) are collaborating to produce a research agenda aimed at enhancing the understanding of the drivers of and interventions addressing clinician burnout in the VA.

Our work builds on the initial research priorities published in 2019 by the National Academies of Science, Engineering and Medicine and will focus especially on interventions to address burnout.

The primary meeting objective is *to outline key research topics, questions, and research infrastructure needs to refine and advance the agenda*.

Wednesday, May 25th

11:30 – 11:45 a.m. — **Welcome & Meeting Overview**

Lisa Simpson, MB, BCh, MPH, FAAP *President and CEO, AcademyHealth*

David Atkins, MD, MPH *Director of Health Services Research and Development (HSR&D), U.S. Department of Veterans Affairs*

Carolyn Clancy, MD *Assistant Under Secretary for Health for Discovery, Education and Affiliate Networks, Veterans Health Administration, U.S. Department of Veterans Affairs*

11:45 – 12:05 p.m. — **Overview of Research Domains and Guiding Framework**

Lisa Simpson, *AcademyHealth*

Christine Sinsky, MD *Vice President, Professional Satisfaction, American Medical Association*

12:05 – 12:10 p.m. — **Overview of Breakout Workgroups**

Rachel Campbell-Baier, *Research Assistant, AcademyHealth*

12:10 – 2:00 p.m. — **Breakout Workgroups**

We will break participants into four groups, with diverse stakeholder representation in each. Each group will go to a breakout room and will have 25-minutes to sequentially discuss each domain. A member of the Advisory Group (one per domain) will facilitate discussions. Rachel will rotate the Advisory Group facilitators through each breakout room, so they will discuss their domain with each of the four breakout rooms, enabling the conversation to build and deepen. Advisory Group members will host a discussion/review of each priority research domain using the discussion questions listed below. Participants will answer the questions and an AcademyHealth staff member will record ideas, questions, and comments that are shared in a Google doc, while sharing their screen.

Discussion questions include:

- *What gaps exist in the current evidence related to this topic area? What are the most pressing questions that need to be answered (especially in a VA context)?*
- *What data, measures, methods, and tools would be needed to support this research? New measures, etc.?*
- *What strategies are needed to ensure that equity considerations are fundamental to the research?*
- *What are potential limitations to the proposed questions? What supportive facilitators or barriers (e.g., leadership support, data availability, methodological challenges, etc.) do you expect to encounter when conducting research related to these questions?*

12:10 - 12:37 p.m.	*Session 1*
12:37 – 1:05 p.m.	*Session 2*
1:05 – 1:32 p.m.	*Session 3*
1:32 – 2:00 p.m.	*Session 4*
2:00 – 2:25 p.m.	Reconvene and Closing Plenary on Cross-Cutting Considerations **Lisa Simpson**, *AcademyHealth*
2:25 – 2:30 p.m.	Next Steps & Closing **Lisa Simpson**, *AcademyHealth*

Appendix F: References

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Endnotes

1. Image retrieved from: https://www.va.gov/HEALTH/visns.asp.
2. See Appendix D for a full list of interviewed stakeholders.
3. See the Appendix B for a full list of Advisory Group members.
4. See the Appendix C for a full participant list.
5. See the Appendix E for the meeting agenda.
6. Psychological safety is a feeling that individuals are comfortable expressing and being themselves, as well as comfortable sharing concerns and mistakes without fear of embarrassment, shame, ridicule, or retribution (Torralba 2020).
7. Moral distress occurs when you know the ethically correct action to take but you are constrained from taking it (American Association of Critical Care Nurses).
8. Moral injury is understood to be the strong cognitive and emotional response that can occur following events that violate a person's moral or ethical code (Williamson 2021).