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The advantage of using the Healthy Healthcare model for uncovering the interplay between doctors' workplace health, quality of care for patients and (economically) sustainable healthcare organisations

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Summary

By 2030, physician retirements across Europe will outpace recruitment, intensifying workloads amid declining doctor health and resilience. Existing workplace wellbeing interventions rarely deliver sustainable impact because they overlook systemic root causes, neglect practitioner involvement, and fail to evaluate trade-offs across worker, organisational, and patient outcomes. Doctors' workplace health reflects how healthcare systems function, yet interventions remain fragmented, behaviour-focused, and poorly evaluated. This paper proposes the Healthy Healthcare (HHC) perspective as a systemic alternative that integrates three interdependent pillars: workers, service organisation, and quality of care. Applying HHC principles to research, innovation, and management enables early stakeholder involvement, consideration of unintended effects, and balanced evaluation of short- and long-term returns on investment. An HHC approach offers a pathway to sustainable care.

Keywords: workplace health, Healthy Healthcare, systemic perspective, doctors' resilience, quality of care, healthcare organisation

The Healthy Healthcare perspective as a way forward for doctors' workplace health and resilience

By 2030, over a third of doctors across EU countries will reach retirement age, surpassing recruitment of new practitioners and increasing the workload for those in clinical practice (1). Alarmingly, it has become clear that there is a continuous decline in the health and resilience of doctors within the

European healthcare system (2-6). These issues arise from a complex situation influenced by multiple intertwined challenges, including rising demands for cost-effective and efficient care, complex healthcare delivery, global political instability and a growing influx of patients requiring specialised care (7). In this situation, it is imperative to attract and retain healthy, efficient doctors to sustain high-quality healthcare services across Europe in the future.

A common approach to ensure resilience and workplace health among doctors is to develop interventions, defined as planned, purposeful actions or sets of actions designed to change a specific outcome, behaviour, or condition (8). However, these are often short-lived improvements that do not produce long-term impact and miss opportunities for system-wide learning (2, 9, 10). Therefore, there is an urgent need to go beyond interventions that solely target the individual worker to those that address the underlying problems: the large numbers of patients and tasks, as well as a lack of human resources.

In this paper, we propose the systemic Healthy Healthcare (HHC) perspective (11-13) as a way forward for improving European doctors' workplace health and resilience by acknowledging the interplay between 1) the healthcare organisation, 2) the worker and 3) the quality of care. We have identified three persistent problems in current intervention and evaluation models that primarily focus on single fixed outcomes, such as health expenditure or management structures, that motivated the use of the HHC perspective:

First, interventions do not align with the root causes of stress; doctors' workplace health is a (climate) indicator of how the entire healthcare system (dis-) functions. Although much is known about associations between organisational and psychosocial work factors, i.e. job strain, role conflict, leadership or long working hours, and a set of health outcomes (14, 15), many interventions to improve work stress fail to identify the root cause(s) within the wider system (9, 16). Accordingly, existing interventions tend to be isolated, often focusing on changing doctors' and workplace behaviours, for instance, through exercise incentives, stress-reduction apps, relaxation spaces, peer support groups, workplace health campaigns and more (15, 17). Moreover, many interventions are built on the wrong foundations, as many solutions are top-down and often follow a one-size-fits-all approach that does not consider variations across healthcare occupations' work environments (18).

In their Lancet paper, Wallace, Lemaire and Ghali (19) emphasised that doctors' wellness is the missing quality indicator for performance of the healthcare system. In fact, workplace health is often driven by a complex, spiraling interplay between positive and negative factors (20), by problems arising from the accumulation of situations caused by the constant implementation of healthcare changes (21), or by organisational constraints such as reimbursement systems (22). These can range from the use of complex health technology that requires multiple logins (23, 24), inefficient task distribution or work scheduling, aggressive behaviour towards staff due to patient crowding, to governmental reforms on healthcare organisation (25). Together, this contributes to a misalignment between what doctors perceive as the problems affecting workplace health and the solutions offered.

Second, healthcare interventions fail to account for their impact on doctors and other workers. There is a widespread belief that the sustainability and competitiveness of healthcare depend on optimising outcomes related to the quality of care and the organisation of services. As a result, these issues, rather than working conditions and workplace health, are the primary and most common factors driving innovations, change and management decisions in healthcare. Yet doctors' workplace health often stems from reactions to the implementation of changes aimed at improving the organisation or quality of care. For example, implementing new treatment models necessitates new ways of working, impacting working conditions for doctors and other care staff. The failure to involve practitioners in

the development and implementation of health innovations makes it difficult to identify (new) risks that could affect the health and resilience of doctors and their colleagues in the workplace.

Lastly, managers are unable to evaluate trade-offs in return on investment of workplace interventions, in the short and long term, which in turn leads to poor decision-making. The failure to include patient and organisational outcomes when addressing working conditions and workplace health limits leaders' ability to assess the trade-offs of an intervention and make informed decisions about implementation (26, 27). Vise versa, the failure to include the effect on employees who will be responsible for administering an organisational or care innovation will risk obsolete or incomplete knowledge on the practical effects of an intervention. Leaders admit that evaluating the effects is scarce, with limited knowledge on what parameters to measure beyond productivity.

The Healthy Healthcare perspective as a way forward for doctors' workplace health and resilience

The HHC perspective is an ambitious systemic perspective that equally recognises the complex interplay among three main pillars in healthcare: 1) the Organisation of services, 2) the Worker, and 3) Quality of care. It has been successfully represented in several projects across Europe (11-13) and aligns with the European Commission's strategic framework to increase the limited use of systemic models in healthcare (10). The HHC principles can be integrated into all healthcare research and innovation (R&I) (11, 12). As such, it addresses the challenges of complex healthcare systems by serving as a guiding principle for innovations, policies, and management decisions applicable across European healthcare systems. Different system theories have made important contributions to identifying important concepts, practices and phenomena in healthcare (11). However, no perspective on healthcare has simultaneously considered the main concepts of quality of care, the worker and organisation as a response to the current challenges in healthcare delivery.

The HHC perspective focuses on altering the demands that cause stress and ill-health in a context where doctor shortages are inevitable and service delivery demands are high. In practice, this means that by simultaneously targeting factors affecting doctors' workplace health and resilience, alongside changes to the organisation of services, such as task unloading, task distribution, and work processes, and by improving the quality of care and patient treatment, the impact will be greater than that of interventions targeting doctors' workplace health and resilience alone. This will more likely create an organisation that balances cost containment, worker wellbeing, and quality of care, regardless of the specific aim of any change or intervention.

Operationalising the HHC model in R&I

In research projects, the HHC principles allow projects targeting health, well-being, and working conditions to broaden the perspective beyond merely investigating the prevalence of work environment factors or the simple associations between work factors and health among doctors.

Practical implications of applying HHC principles in R&I include: involving healthcare professionals, including doctors, from the very beginning of a healthcare R&I project — integrating the professionals and target groups (e.g., managers, patients) who may be affected by a proposed clinical or organisational intervention from the outset, enabling interventions to be designed to meet needs and acknowledging variation in context across clinics, care settings and systems; addressing how the proposed intervention can affect the three pillars of healthcare early in a project and setting up potential outcome metrics, integrating interdisciplinary perspectives and expertise from both research and practice into the project planning; and acknowledging that no project ever goes as

planned, incorporating learning hurdles to document changes, adjusting the process, removing redundant factors, and assessing and evaluating the project process.

An example of a project that aligned with the HHC principles among medical specialists was the rota and shift allocation at Brighton and Sussex University Hospital's emergency department (ED) in the UK (28), which previously contributed to poor staff experience. The medical team implemented an annualised system allowing doctors to self-rota shifts a year ahead. This gave them greater control over their working hours, enhancing work-life balance and job satisfaction (the worker pillar). It also helped identify staffing gaps for new hires, reducing the reliance on agency staff, extended hours, or sacrificing academic and professional commitments. Changes in shift and work allocation involving human resources and payroll led to more part-time and flexible positions, boosting staff retention. After five years, the ED increased from 7 to 23.8 full-time equivalent consultants and from 7 to 20 registrars. The expenditure on agency staff decreased from £1.3 million to reliance solely on agency staff for sickness coverage (organisational pillar). These savings funded the recruitment of all vacant posts. Improved staffing also led to a 68% reduction in ward emergencies over weekends, enhancing patient care (patient pillar) (28).

Applying the HHC model for management decisions

In resource-scarce environments, prioritisations and informed decisions are important. Adopting HHC principles does not guarantee that any change or project will be successful. However, applying HHC principles in clinical practice leads to more balanced management that considers the worker, the patient, and (cost-efficient) quality of care. This means that projects that apply this way of thinking are more likely to include a broader set of relevant parameters, enabling a holistic evaluation of effects (29). A real-world example is the 'perioperative core process and structure indicators' (30), a tool to monitor the quality of care before, during, and after surgery. Aligning with the HHC principles, the tool enables continuous evaluation across the three pillars, monitoring the process and targeting improvements to adjust it, accordingly, ensuring long-term benefits for patients, the organisation and the workforce.

When the effects of activities and interventions are assessed using the HHC principles, leaders will obtain evidence-based information that can provide assurance on whether to terminate a procedure, adjust and implement it, or implement it directly, along with selected parameters to continuously monitor and evaluate its impact on workers, patients, and the organisation. Leaders can then make informed decisions by weighing potential trade-offs among benefits and the short-term and long-term costs of an intervention. This is what we refer to as balanced management.

By applying the HHC principles as a lens to small- and large-scale projects, processes, or practices, healthcare projects will be better able to align with available resources, the context, and the intended impacts in diverse settings where continuous change and development is an inherent part of the activity to align the society and citizens it is set to serve. Doing so increases the chances of identifying and addressing the root causes of stress and workplace health problems before their ripple effects cause harm.

Conclusion

To improve doctors' workplace health, a systemic HHC perspective is necessary. It is relevant to go beyond whether an intervention works to how it works for the doctor, the organisation and the quality of care. This can be done through a systemic perspective, using the HHC principles, and by contributing to the Commission's vision of sustainable healthcare systems that optimise patient outcomes,

empower workers, and strengthen organisational resilience (10, 31). Evidence-based knowledge from a systemic HHC perspective will promote workplace health in changing work environments and improve our understanding of the joint occupational determinants of health and of methods to support healthier, safer, more resilient, and more sustainable working environments for doctors in Europe.

Declaration of Conflict of Interest

The authors declare that the current perspective paper is original work that is not under consideration for publication elsewhere. No potential conflict of interest was reported by the author(s).

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References

1. European Medical Organisations' Joint Policy on the Health Workforce Crisis [press release]. 2025.
2. Otukoya EZ, Amiri A, Alimohammadi E. Surgeon well-being: a systematic review of stressors, mental health, and resilience. BMC Surg. 2025;25(1):430.
3. Brulin E, Wilczek A, Ekberg K, Lidwall U, De Beer LT, Hadzibajramovic E, et al. Predictive value of burnout complaints and depressive symptoms for medically certified sickness absence among physicians in Sweden: a 1-year follow-up observational study. BMJ Open. 2025;15(4):e090966.
4. Hiver C, Villa A, Bellagamba G, Lehucher-Michel MP. Burnout prevalence among European physicians: a systematic review and meta-analysis. Int Arch Occup Environ Health. 2022;95(1):259-73.
5. Guo J, Gokcebel S, Grewal P, Alick-Lindstrom S, Holder K, Gregoski MJ, et al. Burnout in practicing neurologists: a systematic review and meta-analysis. Neurol Clin Pract. 2025;15(1):e200422.
6. Heymann EP, Romann V, Lim R, Van Aarsen K, Khatib N, Sauter T, et al. Physician wellbeing and burnout in emergency medicine in Switzerland. Swiss Med Wkly. 2024;154(5):3421.
7. Kuhlmann E. *The health workforce crisis in the European Union: policy options for improving the sustainability of healthcare systems and employment and working conditions in the healthcare sector*. Frankfurt: Institute of Economics, Labour and Culture, Goethe-University Frankfurt. Directorate-General for Economy, Transformation and Industry; 2025.
8. de Lange AH, Teoh K, Fleuren B, Christensen M, Medisauskaite A, Løvseth LT, et al. Opportunities and challenges in designing and evaluating complex multilevel, multi-stakeholder occupational health interventions in practice. Work Stress. 2024;38(4):352-72.
9. Kolobaric N, Milone B, Salman M, Buh A, Biyani N, Wafy G, et al. Effectiveness of wellness program interventions to improve physician wellness: a systematic review. BMC Health Serv Res. 2025;25(1):908.
10. European Commission, Directorate-General for Health and Food Safety. *Opinion on supporting mental health of health workforce and other essential workers*. Luxembourg: Publications Office of the European Union; 2021.
11. Løvseth LT, de Lange AH. Integrating organisation of healthcare services, workers' wellbeing, and quality of care: an introduction to the system-based perspective of healthy healthcare. In: Tevik Løvseth L, de Lange AH, editors. *Integrating the Organization of Health Services, Worker Wellbeing and Quality of Care: Towards Healthy Healthcare*. Cham: Springer International Publishing; 2020. p. 3-14.
12. Løvseth LT, Teoh K. Healthy healthcare: a systems perspective to integrate healthcare organisations, worker wellbeing, and patient care. EU-OSHA Wiki. 2023.
13. Løvseth LT, Teoh K, de Lange AH, Christensen M, Aboagye E, Arenas A, et al. Integrating organisation of services, worker well-being, and patient care in healthcare interventions: transforming the concept of healthy healthcare into practice. In: Blake H, Hassard J, editors. *Research Handbook on Work and Health*. United Kingdom: Edward Elgar Publishing Ltd; in press.
14. Niedhammer I, Bertrais S, Witt K. Psychosocial work exposures and health outcomes: a meta-review of 72 literature reviews with meta-analysis. Scand J Work Environ Health. 2021;47(7):489-508.

15. Cohen C, Pignata S, Bezak E, Tie M, Childs J. Workplace interventions to improve well-being and reduce burnout for nurses, physicians and allied healthcare professionals: a systematic review. BMJ Open. 2023;13(6):e071203.
16. West CP, Dyrbye LN, Shanafelt TD. Physician burnout: contributors, consequences and solutions. J Intern Med. 2018;283(6):516-29.
17. Catapano P, Cipolla S, Sampogna G, Perris F, Luciano M, Catapano F, et al. Organizational and individual interventions for managing work-related stress in healthcare professionals: a systematic review. Medicina (Kaunas). 2023;59(10).
18. Gynning BE, Karlsson E, Teoh K, Gustavsson P, Christiansen F, Brulin E. Contextualising the job demands-resources model: a cross-sectional study of the psychosocial work environment across different healthcare professions. Hum Resour Health. 2024;22(1):77.
19. Wallace JE, Lemaire JB, Ghali WA. Physician wellness: a missing quality indicator. Lancet. 2009;374(9702):1714-21.
20. Giæver F, Lohmann-Lafrenz S, Løvseth LT. Why hospital physicians attend work while ill? The spiralling effect of positive and negative factors. BMC Health Serv Res. 2016;16(1):548.
21. Looi MK. The European healthcare workforce crisis: how bad is it? BMJ. 2024;384:q8.
22. Brulin E, Ekberg K, Landstad BJ, Lidwall U, Sjöström M, Wilczek A. Money talks: performance-based reimbursement systems impact on perceived work, health and patient care for physicians in Sweden. Front Psychol. 2023;14.
23. Alotaibi N, Wilson CB, Traynor M. Enhancing digital readiness and capability in healthcare: a systematic review of interventions, barriers, and facilitators. BMC Health Serv Res. 2025;25(1):500.
24. Gardner RL, Cooper E, Haskell J, Harris DA, Poplau S, Kroth PJ, et al. Physician stress and burnout: the impact of health information technology. J Am Med Inform Assoc. 2019;26(2):106-14.
25. Efrat-Treister D, Reyt JN, Rafaeli A, Harush R, Lisak A, Zeldetz V, et al. All eyes on me: the impact of individualism vs. collectivism orientations on justice perceptions and mistreatment of frontline staff in emergency departments. Negot Confl Manag Res. 2024;17(4).
26. Han S, Shanafelt TD, Sinsky CA, Awad KM, Dyrbye LN, Fiscus LC, et al. Estimating the attributable cost of physician burnout in the United States. Ann Intern Med. 2019;170(11):784-90.
27. Paterson C, Leduc C, Maxwell M, Aust B, Strachan H, O'Connor A, et al. Barriers and facilitators to implementing workplace interventions to promote mental health: qualitative evidence synthesis. Syst Rev. 2024;13(1):152.
28. Teoh K, Dhensa-Kahlon R, Christensen M, Frost F, Hatton E, Nielsen K. *Organisational Interventions to Support Staff Wellbeing: Case Studies and Learnings From the NHS*. Society of Occupational Medicine; 2023.
29. Carayon P, Cassel C, Dzau VJ. Improving the system to support clinician well-being and provide better patient care. JAMA. 2019;322(22):2165-6.
30. Kelly S, Cunnington P, Dunn H, Kuhn I, Martin G, Dixon-Woods M, et al. Quality indicators for structure and process in peri-operative care: a systematic review. Anaesthesia. 2026.
31. Bishen S, Jacquet P. *Global health and healthcare strategic outlook: shaping the future of health and healthcare*. World Economic Forum; 2023.