deeble *** institute

Deeble Institute for Health Policy Research

Perspectives Brief

no: 24

25 October 2022

Towards a thriving healthcare workforce

A/Prof Kate Huggins^{1,2}
Prof Anna Peeters¹
Dr Sara Holton^{1,3}
Dr Karen Wynter^{1,3}
Prof Alison Hutchinson^{1,3}
Prof Bodil Rasmussen^{1,3}
Prof Anthony LaMontagne^{1,2}

¹Institute for Health Transformation
²School of Health and Social Development and
³School of Nursing and Midwifery
Deakin University

E: kate.huggins@deakin.edu.au



Table of Contents

The relationship between work and wellbeing	1
A programmatic approach to healthcare worker wellbeing	2
The impact of COVID-19 on healthcare worker wellbeing	3
Rapid changes to service delivery	3
Positive changes to work practices during COVID-19 should be retained	4
Communication to promote change	4
System level approaches to protect individual wellbeing should be implemented	5
Working conditions	5
Psychological safety	6
Workforce supply and skill-mix demands impact healthcare worker wellbeing	6
High quality data on healthcare worker wellbeing and job-related modifiable risk factors should be routinely collected	
Strategies to improve healthcare worker wellbeing should be evaluated	8
Conclusion and recommendations	9
References	10



The relationship between work and wellbeing

Healthcare workers are the cornerstone of health service delivery and quality of patient care. Valuing and protecting healthcare workers is critical for the safety of patients and for ensuring a thriving and sustainable workforce. If our health system is under resourced, it becomes unsafe for employees and consumers. The full impact of the COVID-19 pandemic on healthcare worker wellbeing will not be realised for some time as the negative impacts are sustained (Stubbs et al. 2021). We should, however, act now to invest in ways to repair and protect wellbeing of healthcare workers by making work safe and sustainable. Supporting and protecting healthcare workers' safety and wellbeing is linked to provision of high quality, safe and sustainable healthcare (Hall et al. 2016). A shift in culture across the healthcare system to place promoting and protecting healthcare worker wellbeing as one of the core components of an effective and safe healthcare system is needed. This requires enabling policies to support the cultural change needed.

Protecting healthcare worker wellbeing is a priority for attracting and retaining the healthcare worker workforce. Employers have an obligation to provide work that is both physically and psychologically safe and therefore need to minimise work-related modifiable determinants of worker wellbeing to the extent feasible. Although employee's wellbeing will differ due to both intrinsic factors and personal factors; job satisfaction and contentment at work also strongly impact on wellbeing. For nurses, job satisfaction is the one most important factor that keeps them motivated and therefore retained in the workforce (Dall'Ora et al. 2020; Smith et al. 2022). Job satisfaction is substantially influenced by a range of factors and the work environment illustrated in Figure 1.

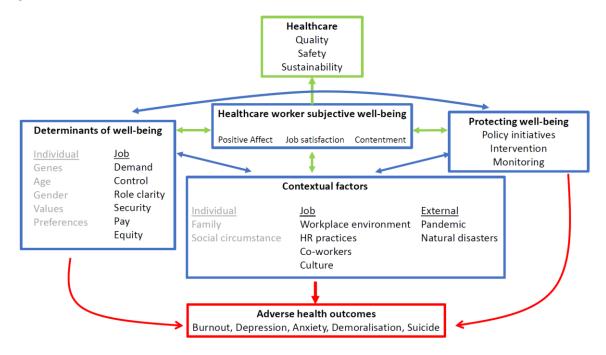


Figure 1: Relationship between wellbeing and work (adapted from (Kleine et al. 2019))





Poor wellbeing, regardless of cause, can lead to adverse events at work (Hall et al. 2016). Erosion of wellbeing is linked with absenteeism, attrition from the workplace and burnout (Brand et al. 2017; Burmeister et al. 2019). The healthcare system was under strain prior to the pandemic, with demands from an ageing population, people with increasingly complex care needs (Edelman et al. 2020) and the transformation to digital health creating large administrative burdens (Kataria and Ravindran 2020). The pandemic has accentuated and exacerbated the impact of work and the work environment on the mental health and wellbeing of healthcare workers (Bismark et al. 2022a; Bismark et al. 2022b).

A programmatic approach to healthcare worker wellbeing

Best practices for protecting and promoting worker health and wellbeing take an integrated planned approach (Sorensen et al. 2018). A programmatic approach to promoting and protecting healthcare worker wellbeing needs to span workplace culture, environment, structures and processes, for example, regular inspections of the psychosocial hazards. Success is hinged on robust regular data collection and reporting, to drive design implementation of effective initiatives and strategies to protect healthcare worker wellbeing (Figure 2) and to create a learning cycle and improvement culture for healthcare worker health and safety. To achieve this, support is needed from all stakeholder groups of the healthcare system to set expectations and create accountability for action, for example, government, health service organisations, healthcare workers, and the community. Identifying relevant approaches for protecting wellbeing is complex because it needs to consider determinants of wellbeing and contextual factors (Figure 1). Taking a systems view, by drawing on systems thinking methods, is one way to co-develop solutions. Applying systems mapping approaches enables inclusion of government, service organisations, healthcare workers, consumers, and other key stakeholders to be part of characterising the state of current policy and practice and to identify gaps and potential solutions, similar to what's been done to understand protecting against work-related violence (Salmon et al. 2022).

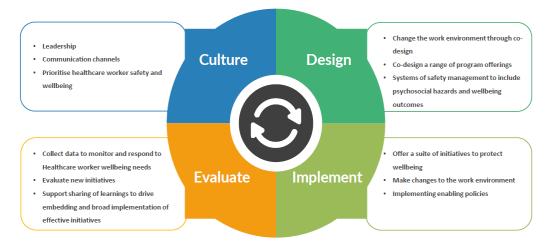


Figure 2: Potential health services actions in a programmatic approach to wellbeing at work



In this perspective brief we identify and discuss four areas where policy action should be taken to protect healthcare worker safety and wellbeing now and into the future, including:

- 1) supporting health service leaders to drive cultural change to prioritise wellbeing of staff;
- 2) addressing imbalances between workforce supply and skill-mix demand;
- 3) implementing a data monitoring system on work-related risk factors (psychosocial hazards); and
- 4) facilitating access to evidence-based interventions to protect wellbeing.

Notwithstanding that healthcare worker wellbeing is a whole of workforce issue, this perspectives brief has been limited to considering healthcare workers employed in the context of hospital health services and actions for consideration by policy makers and health services.

The impact of COVID-19 on healthcare worker wellbeing

Burnout and mental illness were prevalent among healthcare workers prior to the pandemic (Milner et al. 2016; De Cieri et al. 2019). Data from before the pandemic showed that around one in four junior doctors in Australia are working hours that are associated with a doubling of their risk of common mental health problems and suicidal ideation (Petrie et al. 2020), but the health system has made only small changes to address the causes of burnout, anxiety, depression, and compassion fatigue. The COVID-19 has had a substantial negative impact on healthcare workers wellbeing and an increase in attention to the measurement of healthcare worker wellbeing, globally and in Australia (Holton et al 2021, 2022; Smallwood et al. 2021; Willis et al. 2021).

Rapid changes to service delivery

The pandemic imposed increased workloads on staff (Smallwood et al. 2021). Healthcare workers experienced decreased control over decisions on how to act in their role due to limited resources or changes to delivery of care due to circumstances beyond their control, that is, they experienced low job control (Dall'Ora et al. 2020; McDougall et al. 2020; Willis et al. 2021). The uncertainty that came with a rapidly changing understanding of COVID-19 and how it spreads, coupled with evolving best practice treatments for COVID-19 patients, poor resource allocation and management of personal protective equipment to best protect themselves from the disease, led to increased stress and anxiety (Billings et al. 2021).

A lack of role clarity created additional issues as some healthcare workers were required to adapt to new ways of working, such as dispersed teams providing telehealth, including from home (Holton et al. 2021; Smallwood et al. 2021). Healthcare teams also faced redeployment into services outside their usual area of practice (Panda et al. 2021; Chu et al. 2022). The consequence of these working conditions on wellbeing is realised in the numerous reports of high levels of burnout, depression,



anxiety, demoralisation and suicide ideation among healthcare workers throughout the peak of the COVID-19 pandemic (Smallwood and Willis 2021; Wynter et al. 2022).

This crisis provides the spotlight for transformation of the healthcare system so that the system better supports and protects those who serve it and use it, and importantly, enables them to thrive.

Positive changes to work practices during COVID-19 should be retained

It is essential that we learn from the impact of the pandemic. Effective mitigation strategies to protect wellbeing can be realised by assessing the changes in practice during the pandemic that have had a more positive impact on lowering job demand and increasing job control. Most notably, are the rapid changes to some work practices that reduced administrative burden which should be sustained. When done well, and with adequate support for change, the adoption of digital health practices with scaled back administrative requirements provides more time for clinicians to spend with patients and get back to the core of their work purpose (Zaresani and Scott 2020). However, introduction of some technologies prior to the pandemic, has been associated with increased time burden on healthcare workers and increased levels of stress due to the administrative burden (Kataria and Ravindran 2020). Evaluation of practices since the rapid scaling up of digital tools during the COVID-19 pandemic is required so that learnings from this crisis can be used to inform policy action and transform the health system to better support healthcare worker wellbeing. Other positive changes reported during the peak of the pandemic in Australia and the United Kingdom include implementation of video consultations, greater use of advanced practice role, being able to give more time to seriously unwell patients (Holton et al. 2021; Wood et al. 2021) and for some workers online education, virtual meetings and working at home were perceived as practices to be continued post pandemic (Wynter et al. 2022b).

Communication to promote change

Employers have a responsibility to mitigate work-related factors that affect negatively on healthcare worker wellbeing. It was reported at the start of the pandemic that front line healthcare workers did not feel they had effective communication channels to convey effectively to leaders what they needed to feel safe at work (Willis et al. 2021), identifying an opportunity to evaluate and optimise processes. Healthcare organisations need to establish practices to promote conversations that encourage healthcare workers to speak with their leaders. Leaders need to be supported through access to budgets and resources to be able to improve the work conditions contributing to risk of burnout. Policy action can support this change, for example developing organisational policies to drive cultural change and calling on professional regulatory bodies to mandate training or preprofessional education in mental health awareness and setting this as a core competency of practice. Governments need to appropriately fund health services to enable changes to work conditions that will promote and protect healthcare worker wellbeing, which in turn should build a thriving workforce to deliver higher quality, safer care (Putrik et al. 2021; Trutner et al. 2022).





System level approaches to protect individual wellbeing should be implemented

The decade ahead is predicted to be volatile, uncertain, complex and ambiguous. In Australia, we recently have experienced these factors with frequent climate crises affecting our healthcare system, such as the world's largest thunderstorm asthma event in Melbourne (2016) (Department of Justice and Regulation 2017), the catastrophic bushfires in the summer of 2019/2020 on the east coast of Australia (Lay 2020), and the devastating floods in February, March, July and October this year (NSW Dept. Premier and Cabinet 2022). This leads to both high and unpredictable demand on our healthcare system, requiring greater attention to strategies that will support a thriving sustainable workforce to operate it. A programmatic approach to wellbeing that starts with policy that supports culture change across the system and supports organisations to design context-specific policies, programs and individual initiatives that look after and respond to the wellbeing needs of workers will provide greater stability in future crises.

Stress is inherent in healthcare work, for example usual duties can include stressful events on a regular basis such as death of patients or dealing with multiple trauma patients. To support employees through stressful times, health service organisations offer support programs for example mindfulness programs, which have been shown to be effective for short-term stress management (De Cieri et al. 2019; Holton et al, 2022). However, these initiatives do not address the root causes of working conditions that contribute to adverse health and organisational outcomes such as burnout, depression, anxiety, absenteeism and attrition from the workforce (Ruotsalainen et al. 2015; Martin et al. 2019; Punnett 2022; LaMontagne et al. 2019).

Working conditions

Employers are responsible for providing safe working conditions which includes protection of wellbeing and mental health. Changes to organisational structures and processes to relieve the pressures that contribute to deteriorating wellbeing, such as job design, workload demands and workforce supply, are needed (Ruotsalainen et al. 2015; Burmeister et al. 2019; LaMontagne 2019). It is important to develop the positive aspects of work as by designing jobs with manageable demands (Punnett 2022) enabling job control (autonomy) and allowing time for connection to job purpose (of providing high quality care). Safer Carer Victoria's Healthcare Wellbeing Centre provides links to resources such as to the Institute for Healthcare Improvement's Joy at Work Framework (Perlo et al. 2017) which seeks to guide organisations in promoting the positive aspects of work. Evaluation of implementation of this framework in the Australian context are not yet available but will be important to identify effective ways to promote the positive aspects of work for healthcare workers.



Psychological safety

Creating a psychologically safe workplace where healthcare workers feel supported is linked with improved emotional wellbeing, for example offering peer-to-peer mentoring where people can discuss mistakes without fear of retribution and creating clear communication channels across the organisation regarding psychosocial risks (Grailey et al. 2021; O'Donovan 2020). A comprehensive evidence bank of strategies that enable organisations to develop an integrated approach to workplace wellbeing and psychological safety is critical to ensure that employers are supported to fulfil their obligations to provide a safe and secure work environment. A clearinghouse established for collating and analysing data on wellbeing and job safety policies, interventions, and status of the workforce, in a central location and made available to health services leaders, policy makers, and researchers could expand or extend the resources currently available through, for example, Safer Carer Victoria's Healthcare Wellbeing Centre. A mapping exercise across the system to examine how health services are creating a culture of psychological safety and how this is monitored for impact on wellbeing outcomes (for example, burnout, depression, anxiety) and organisational outcomes (for example, absenteeism, attrition from the workforce) needs to be undertaken. This could be undertaken by state or national authorities such as Safer Care Victoria, in collaboration with health services and with the support of academic institutions for rapid evidence synthesis (for example, The Cochrane Collaboration or research institutes). In the longer term this could develop into a monitoring system run by the health services to track healthcare worker wellbeing and evaluate interventions.

Workforce supply and skill-mix demands impact healthcare worker wellbeing

A constant stress on the healthcare workforce, particularly in rural and remote areas (Wakerman et al. 2019; Smith et al. 2022), is the imbalance between workforce supply and skill-mix demand (Wakerman et al. 2019). To enable a better resourced health workforce that meets community needs, data-driven improvements in workforce training, distribution and planning should be implemented.

Many patients have complex health conditions and increasing acuity, requiring new models of care (Putrik et al. 2021). Healthcare workers need to be supported to obtain the relevant training to ensure they have the right skill mix to meet job demands. Cross-sector collaboration between tertiary education providers and health services will align professional training with new models of care. Economic imperatives to control health system expenditure (Calder et al. 2019) and the challenges in recruitment and retention of personnel impact the balance in numbers of appropriately educated and trained personnel who are deployed to deliver care (Aiken et al. 2014; Blackman et al. 2018). This requires development of novel approaches to delivering quality care at lower cost, such as through value-based healthcare (Woolcock 2019).



Collaboration with professional accrediting bodies and education institutions to enable clinicians to rapidly acquire the new and/or advanced skills they need to meet their job demands will likely lead to greater job satisfaction (Wakerman et al. 2019). This provision of skills training needs to be complemented by provision of space and time at work to learn new technologies (job control) or implement new models of care and to be supported by guidelines and leadership that enable healthcare workers to practice to the top of their scope of practice.

Matching skill-mix to demand and building a sustainable workforce is only possible if data are available to inform decisions. The Federal Government's Health Demand and Supply Utilisation Patterns Planning (HeaDS UPP) Tool, is expected to provide a national workforce database to enable projections to inform planning for a sustainable workforce. HeaDS UPP was introduced in 2019 with limited focus on the GP workforce and the vision is for expansion to the whole of healthcare workforce. It is important to evaluate this tool and assess impact of the effectiveness on addressing the workforce supply and demand issues. It is important that there is a consolidated source of data and a standardised approach to analysing the data to track workforce supply and demand.

High quality data on healthcare worker wellbeing and jobrelated modifiable risk factors should be routinely collected

The COVID-19 pandemic has highlighted the need for regular data collection on the job-related modifiable determinants of wellbeing so that action can be taken to mitigate risk factors. Longitudinal data, such as repeated cross-sectional surveys, are crucial to the development and implementation of appropriate, feasible and acceptable initiatives that promote and protect wellbeing for healthcare workers. The lack of high-quality pre-pandemic data has limited the understanding of the extent of the burden of the pandemic on healthcare worker wellbeing. Absence of routine surveillance of wellbeing and of job-related modifiable determinants of wellbeing means an absence of evidence upon which to make decisions on how to act to improve wellbeing.

Monitoring employee wellbeing can alert organisations to potential risks that the workforce may experience and can be used to advocate for implementation of protective measures to avert issues in a timely manner. These data can feed back into an overall health and safety management system within local health services (that is, integrated into systems the currently monitor physical hazards) to allow for regular tracking and examination of how wellbeing is changing over time and to evaluate local and national improvement efforts (McLinton et al. 2019). Linking wellbeing data to data on attrition from the workplace, absenteeism using data privacy principles and de-identified data and will enable assessment of the sustainability of the workforce and a growing evidence base to support the prioritisation of healthcare workforce safety and wellbeing. Monitoring is critical at the local level, but could also be aggregated at a regional, state and/or national level to get a system-wide view of healthcare worker wellbeing and priority areas.



Addressing job-related modifiable determinants of healthcare worker wellbeing should be set as a quality indicator to ensure the delivery of high-quality care to patients (Wallace et al., 2009). This necessitates that health services are supported to assess and monitor working conditions in a standardised manner and are accountable for reporting and developing action plans to mitigate risks. One example would be that health services become accountable for building a culture that promotes and protects wellbeing. For example, by setting local goals to achieve outcomes, such as identifying wellbeing champions and being transparent in reporting on wellbeing and organisation outcomes. To prioritise healthcare worker wellbeing, consideration to how accreditation processes could support a cultural shift to prioritising healthcare worker wellbeing should be explored.

Strategies to improve healthcare worker wellbeing should be evaluated

During the peaks of the COVID-19 pandemic significant investment was made by governments and organisations to provide support and interventions to protect healthcare worker wellbeing (Boosting Healthcare Workers Wellbeing And Safety | Premier of Victoria). It is important to evaluate new and existing initiatives and to build an evidence base of effective intervention strategies and policies (Salmon et al. 2022). An evaluation in an Australian hospital found that some individual-level initiatives implemented during the COVID-19 pandemic, such as, daily staff briefings, wellbeing and support updates, and wellness hubs, were associated with lowering stress and anxiety (Holton et al. 2022).

Access to information and data supports better decision making and can be used by healthcare leaders to inform efforts to change the culture in their organisations to promote and protect worker wellbeing. A comprehensive evidence bank of strategies that reflect an integrated approach to workplace wellbeing and job safety is critical to enabling and encouraging organisations to fulfil their obligations to provide a psychologically safe a secure work environment.

Strengthening the evidence base through research which focuses on long-term understanding of healthcare worker wellbeing is critical; and it would timely to establish a centre of research excellence for healthcare worker wellbeing to support national and international collaborations, synthesise existing evidence, identify priority evidence gaps and support partnership research with healthcare services and government to fill these gaps. Specific priority areas include:

- To comprehensively review if initiatives implemented by health services are effectively addressing psychological hazards.
- Develop additional interventions through co-design with healthcare workers that recognise
 the systemic nature of the modifiable job-related drivers of healthcare workforce wellbeing.
 Ensure that these interventions are implemented effectively and evaluated.
- Gather and share the stories of the lived experience of healthcare workers in different contexts and from different disciplines.



 Establish routine collection of standardised measures of healthcare workforce wellbeing to enable comparative evaluations, longitudinal tracking and sustained benefit from engagement in health and wellbeing activities.

Conclusion and recommendations

Protecting healthcare worker wellbeing is a priority for attracting and retaining the workforce. This has always been true, but COVID-19 has shone a spotlight on the critical importance of healthcare worker wellbeing for our health system.

The healthcare system is a shared responsibility between the federal and state governments. Both governments and health service providers have a duty of care towards healthcare workers' health and safety, which includes protection of their mental health and overall wellbeing. Failure to protect healthcare worker wellbeing will lead to an unsustainable workforce that will have wider implications for the quality and sustainability of all service offerings within the health services.

While this perspectives brief has considered healthcare workers employed in the context of hospital health services, wellbeing is an issue affecting the broader healthcare workforce, and consideration of the sector in its entirety will be needed to address this pressing issue.

Action plan to initiate cultural change in healthcare systems for supporting healthcare worker wellbeing

- Policy development to drive cultural change to prioritise psychologically safe work environments.
- Establish mechanisms for routine, ongoing collection of standardised measures of healthcare workforce wellbeing.
- Perform regular gap and risk analyses to enable context specific capability building informed by real time data on workforce demand and gaps in competencies, positions and employees.
- Co-design strategies recognising the systemic nature of the known modifiable job-related drivers of lowering wellbeing to reduce adverse health and organisational outcomes such as burnout, depression, anxiety and absenteeism.
- Establish a clearinghouse of data, information, tools and resources for health service leaders, supporting implementation, monitoring and evaluation of initiatives to promote and protect wellbeing.



References

Aiken LH, Sloane DM, Bruyneel L, Van den Heede K, Griffiths P, Busse R, ... Sermeus W. (2014). 'Nurse staffing and education and hospital mortality in nine European countries: a retrospective observational study', *Lancet*, 383(9931):1824-1830, https://doi.org/10.1016/s0140-6736(13)62631-8

Bailey E, Robinson J and McGorry P. (2018). 'Depression and suicide among medical practitioners in Australia', *Intern Med J*, 48(3):254-258, https://doi.org/10.1111/imj.13717

Billings J, Ching BCF, Gkofa V, Greene T and Bloomfield M. (2021). 'Experiences of frontline healthcare workers and their views about support during COVID-19 and previous pandemics: a systematic review and qualitative meta-synthesis', *BMC Health Services Research*, 21(1):923, https://doi.org/10.1186/s12913-021-06917-z

Bismark M, Scurrah K, Pascoe A, Willis K, Jain R and Smallwood N. (2022a). 'Thoughts of suicide or self-harm among Australian healthcare workers during the COVID-19 pandemic', *Aust N Z J Psychiatry*, 48674221075540, https://doi.org/10.1177/00048674221075540

Bismark M, Smallwood N, Jain R and Willis K. (2022b). 'Thoughts of suicide or self-harm among healthcare workers during the COVID-19 pandemic: qualitative analysis of open-ended survey responses', *BJPsych Open*, 8(4):e113, https://doi.org/10.1192/bjo.2022.509

Blackman I, Lye CY, Darmawan IGN, Henderson J, Giles T, Willis E, ... Verrall C. (2018). 'Modeling Missed Care: Implications for Evidence-Based Practice', *Worldviews Evid Based Nurs*, 15(3):178-188, https://doi.org/10.1111/wvn.12285

Brand SL, Thompson Coon J, Fleming LE, Carroll L, Bethel A and Wyatt K. (2017). 'Whole-system approaches to improving the health and wellbeing of healthcare workers: A systematic review', *PLOS ONE*, 12(12):e0188418, https://doi.org/10.1371/journal.pone.0188418

Burmeister EA, Kalisch BJ, Xie B, Doumit MAA, Lee E, Ferraresion A, ... Bragadóttir H. (2019). 'Determinants of nurse absenteeism and intent to leave: An international study', *J Nurs Manag*, 27(1):143-153, https://doi.org/10.1111/jonm.12659

Calder R, Dunkin R, Rochford C and Nichols T. (2019). 'Australian health services: too complex to navigate: a review of the national reviews of Australia's health service arrangements'. Accessed 13 October 2022: https://apo.org.au/node/223011

Chu G, Connelly K, Mexon A, Britton B, Tait J, Pitt V and Inder K. (2022). 'Nurses' satisfaction and experiences of redeployment during COVID-19- A cross-sectional survey'. PREPRINT (Version 1). https://doi.org/10.21203/rs.3.rs-1429392/v1



Dall'Ora C, Ball J, Reinius M and Griffiths P. (2020). 'Burnout in nursing: a theoretical review', *Hum Resour Health*, 18(1):41, https://doi.org/10.1186/s12960-020-00469-9

De Cieri H, Shea T, Cooper B and Oldenburg B. (2019). 'Effects of Work-Related Stressors and Mindfulness on Mental and Physical Health Among Australian Nurses and Healthcare Workers', *J Nurs Scholarsh*, 51(5):580-589, https://doi.org/10.1111/jnu.12502

Department of Justice and Regulation. (2017). 'Review of response to the thunderstorm asthma event of 21–22 November 2016 Final Report' Inspector-General for Emergency Management, Department of Justice and Regulation, Melbourne, Australia. Accessed 13 October 2022: https://www.igem.vic.gov.au/publications/igem-reports/review-of-response-to-the-thunderstorm-asthma-event-of-21-22-november-0

Edelman A, Grundy J, Larkins S, Topp SM, Atkinson D, Patel B, ... Whittaker M. (2020). 'Health service delivery and workforce in northern Australia: a scoping review', *Rural Remote Health*, 20(4):6168, https://doi.org/10.22605/rrh6168

Grailey KE, Murray E, Reader T and Brett SJ (2021). 'The presence and potential impact of psychological safety in the healthcare setting: an evidence synthesis', *BMC Health Serv Res*, 21(1):773. https://doi.org/10.1186/s12913-021-06740-6

Hall LH, Johnson J, Watt I, Tsipa A and O'Connor DB. (2016). 'Healthcare Staff Wellbeing, Burnout, and Patient Safety: A Systematic Review', *PLOS ONE*, 11(7):e0159015, https://doi.org/10.1371/journal.pone.0159015

Holton S, Wynter K, Trueman M, Bruce S, Sweeney S, Crowe S, ... Rasmussen B. (2021). 'Immediate impact of the COVID-19 pandemic on the work and personal lives of Australian hospital clinical staff', *Aust Health Rev*, 45(6):656-666, https://doi.org/10.1071/ah21014

Holton S, Wright A, Wynter K, Hall L, Wintle J, Lambis E, ... Rasmussen B. (2022). 'Health service COVID-19 wellbeing and support initiatives: a mixed-methods evaluation'. *Occup Med*, kqac060. https://doi.org/10.1093/occmed/kqac060

Kataria S and Ravindran V. (2020). 'Electronic Health Records: A Critical Appraisal of Strengths and Limitations', *J R Coll Physicians Edinb*, 50(3):262-268, https://doi.org/10.4997/jrcpe.2020.309

Kleine A-K, Rudolph CW and Zacher H. (2019). 'Thriving at work: A meta-analysis', *J Organ Behav*, 40(9-10):973-999, https://doi.org/10.1002/job.2375

LaMontagne AD, Martin A, Page KM, Reavley NJ, Noblet AJ, Milner AJ, ... Smith PM. (2019). 'Developing an integrated approach to workplace mental health', *Total Worker Health: Integrative Approaches to Safety, Health & Wellbeing*. American Psychological Association, Washington DC. Chapter 12, 211-227. Accessed 13 October 2022: https://psycnet.apa.org/record/2019-36372-013



Lay K. (2017). 'After the Flames – Community Reflections 2019-2020'. Emergency Recovery Victoria, Melbourne, Australia. Accessed 13 October 2022: https://www.vic.gov.au/2019-20-eastern-victorian-bushfires

Martin A, Shann C and LaMontagne AD. (2019). 'Promoting Workplace Mental Wellbeing', *Handbook of Disability, Work and Health*. Springer International Publishing, Cham, Denmark, https://doi.org/10.1007/978-3-319-75381-2 15-1

McDougall RJ, Gillam L, Ko D, Holmes I and Delany C. (2020). 'Balancing health worker well-being and duty to care: an ethical approach to staff safety in COVID-19 and beyond', *J Med Ethics*, 47:318-323, https://doi.org/10.1136/medethics-2020-106557

McLinton SS, Afsharian A, Dollard MF and Tuckey MR. (2019). 'The dynamic interplay of physical and psychosocial safety climates in frontline healthcare', *Stress Health*, 35(5):650-664, https://doi.org/10.1002/smi.2898

Milner AJ, Maheen H, Bismark MM and Spittal MJ. (2016). 'Suicide by health professionals: a retrospective mortality study in Australia, 2001-2012', *Med J Aust*, 205(6):260-265, https://doi.org/10.5694/mja15.01044

NSW Department of Premier and Cabinet. (2022). Independent Flood Inquiry, Sydney, Australia. Accessed 13 October 2022: https://www.nsw.gov.au/nsw-government/projects-and-initiatives/floodinquiry

O'Donovan, R., McAuliffe, E. (2020). 'Exploring psychological safety in healthcare teams to inform the development of interventions: combining observational, survey and interview data', *BMC Health Serv Res*, 20:810, https://doi.org/10.1186/s12913-020-05646-z

Panda N, Sinyard RD, Henrich N, Cauley CE, Hannenberg AA, Sonnay Y, ... Molina G. (2021). 'Redeployment of Health Care Workers in the COVID-19 Pandemic: A Qualitative Study of Health System Leaders' Strategies', *J Patient Saf*, 17(4):256-263, https://doi.org/10.1097/pts.000000000000000847

Perlo J, Balik B, Swensen S, Kabcenell A, Landsman J, Feeley D. (2017). IHI Framework for Improving Joy in Work. Institute for Healthcare Improvement, Cambridge, Massachusetts, United States of America. Accessed 5 August 2022:

https://www.ihi.org/resources/Pages/IHIWhitePapers/Framework-Improving-Joy-in-Work.aspx

Petrie K, Crawford J, LaMontagne AD, Milner A, Dean J, Veness BG, ... Harvey SB. (2020). 'Working hours, common mental disorder and suicidal ideation among junior doctors in Australia: a cross-sectional survey', *BMJ Open*; 10(1):e033525, https://doi.org/10.1136/bmjopen-2019-033525



Punnett L. (2022). 'Response to NIOSH Request for Information on Interventions to Prevent Work-Related Stress and Support Health Worker Mental Health', *New Solut*, 10482911221126271, https://doi.org/10.1177/10482911221126271

Putrik P, Jessup R, Buchbinder R, Glasziou P, Karnon J and DA OC. (2021). 'Prioritising models of healthcare service delivery for a more sustainable health system: a Delphi study of Australian health policy, clinical practice and management, academic and consumer stakeholders', *Aust Health Rev*, 45(4):425-432, https://doi.org/10.1071/ah20160

Ruotsalainen JH, Verbeek JH, Mariné A and Serra C. (2015). 'Preventing occupational stress in healthcare workers', *Cochrane Database Syst Rev*, 4:Cd002892, https://doi.org/10.1002/14651858.CD002892.pub5

Salmon PM, Coventon L and Read GJM. (2022). 'A systems analysis of work-related violence in hospitals: Stakeholders, contributory factors, and leverage points', *Safety Science*, 156:105899, https://doi.org/10.1016/j.ssci.2022.105899

Smallwood N, Pascoe A, Karimi L, Bismark M and Willis K. (2021). 'Occupational Disruptions during the COVID-19 Pandemic and Their Association with Healthcare Workers' Mental Health', *Int J Environ Res Public Health*, 18(17), https://doi.org/10.3390/ijerph18179263

Smallwood N and Willis K. (2021). 'Mental health among healthcare workers during the COVID-19 pandemic', *Respirology*, 26(11):1016-1017, https://doi.org/10.1111/resp.14143

Smith S, Lapkin S, Halcomb E and Sim J. (2022). 'Job satisfaction among small rural hospital nurses: A cross-sectional study', *J Nurs Scholarsh*, 2022:00, 1–10, https://doi.org/10.1111/jnu.12800

Sorensen G, Sparer E, Williams JAR, Gundersen D, Boden LI, Dennerlein JT, ... Wagner GR. (2018). 'Measuring Best Practices for Workplace Safety, Health, and Well-Being: The Workplace Integrated Safety and Health Assessment', *J Occup Environ Med*, 60(5):430-439. https://doi.org/10.1097/JOM.0000000000001286

Stubbs JM, Achat HM and Schindeler S. (2021). 'Detrimental changes to the health and well-being of healthcare workers in an Australian COVID-19 hospital' *BMC Health Serv Res*, 21(1):1002, https://doi.org/10.1186/s12913-021-07013-y

Trutner ZD, Teisberg EO and Bozic KJ. (2022). 'Value-based Healthcare: Five Strategies to Save Patients, Physicians, and Dollars', *Clin Orthop Relat Res*, 480(5):862-866, https://doi.org/10.1097/corr.0000000000002195

Wakerman J, Humphreys J, Russell D, Guthridge S, Bourke L, Dunbar T, ... Jones MP. (2019). 'Remote health workforce turnover and retention: what are the policy and practice priorities?', *Hum Resour Health*, 17(1):99, https://doi.org/10.1186/s12960-019-0432-y



Willis K, Ezer P, Lewis S, Bismark M and Smallwood N. (2021). "Covid Just Amplified the Cracks of the System": Working as a Frontline Health Worker during the COVID-19 Pandemic', *Int. J. Environ. Res. Public Health*, 18(19):10178, https://doi.org/10.3390/ijerph181910178

Wood E, King R, Senek M, Robertson S, Taylor B, Tod A and Ryan A. (2021). 'UK advanced practice nurses' experiences of the COVID-19 pandemic: a mixed-methods cross-sectional study', *BMJ Open*, 16;11(3):e044139, https://doi.org/10.1136/bmjopen-2020-044139

Woolcock K. (2019). Deeble Issues Brief No 31. Value Based Health Care: Setting the scene for Australia', Australian Healthcare and Hospitals Association, Australia. Accessed 13/10/22: <u>Deeble Issues Brief No.31</u>. Value Based Healthcare: Setting the Scene for Australia.

Wynter K, Holton S, Trueman M, Bruce S, Sweeney S, Crowe S, ... Rasmussen B. (2022). 'Hospital clinicians' psychosocial well-being during the COVID-19 pandemic: longitudinal study', *Occup Med*, 72(3):215-224, https://doi.org/10.1093/occmed/kqac003

Wynter K, Holton S, Considine J, Hutchinson AM, Munt R, Williams R, ... Rasmussen B (2022b). 'The impact of the COVID-19 pandemic on Australian hospital-based nursing and midwifery educators', *Collegian*, 29(3):271-280, https://doi.org/10.1016/j.colegn.2021.10.007

Zaresani A and Scott A. (2020). 'Does digital health technology improve physicians' job satisfaction and work-life balance? A cross-sectional national survey and regression analysis using an instrumental variable', *BMJ Open*, 10(12):e041690, https://doi.org/10.1136/bmjopen-2020-041690



Contact:

Adj AProf Rebecca Haddock
Executive Director Knowedge Exchange
Australian Healthcare and Hospitals Association.
Email: rhaddock@ahha.asn.au

Citation: Huggins K, Peeters A, Holton S, Wynter K, Hutchinson A, Rasmussen B and LaMontagne A. (2022). Towards a thriving healthcare workforce. Deeble Perspectives Brief 24. Australian Healthcare and Hospitals Association, Australia.

© Australian Healthcare and Hospital Association, 2022. All rights reserved.



AHHA acknowledge the Aboriginal and Torres Strait Islander peoples as Australia's First Nation Peoples and the Traditional Custodians of this land. We respect their continued connection to land and sea, country, kin, and community. AHHA also pays our respect to their Elders past, present, and emerging as the custodians of knowledge and lore.