Centre for Work Health and Safety

WHS Radar report

April 2023



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Work Health and Safety Radar

Centre for Work Health and Safety¹

April 2023

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Executive summary

The Work Health and Safety (WHS) Radar has synthesised the latest data on pertinent issues, trends and insights related to the current state of play regarding WHS in and outside of Australia, as well as potential WHS issues in the future world of work.

Insights from the current iteration of the WHS Radar are derived from:

- the analysis of existing databases (Australian Business Register), social media data and data reports (Australian Bureau of Statistics),
- a review of the international grey and academic literature, and
- consultations with Australian workers (the Australian WHS Survey, January 2023), with senior WHS professionals (the Australian Institute of Health & Safety's College of Fellows) and WHS inspectors (from Australian regulators associated with the Heads of Workplace Safety Authorities).

The following insights are of particular importance.

Continued financial pressures are influencing attitudes towards safety

As geopolitical and economic pressures continue, such as inflation, labour shortage and supply chain disruption, Australian industries are predicted to respond with improved efficiency and productivity measures, both of which will challenge the priority placed on health, safety and worker wellbeing. Consultations with Australian workers, WHS professionals and inspectors indicate the emergence of complacency and acceptance of unsafe practices, particularly in the face of increasing work demands and financial pressure. The WHS inspectors reported persons conducting a business or undertaking (PCBUs) lacking understanding and commitment around WHS, with some suggesting that the financial strain of establishing good WHS practice may be influencing the reluctance. The inspectors shared

the view that it is more affordable for some PCBUs to be fined than to put safe systems in place, that staff shortages make it more difficult for PCBUs to discipline staff, that there are insufficient inspectors "on the ground" to uphold compliance, and that COVID-19 has affected work ethics and behaviours, where cost and shortcuts are now more common. The WHS professionals similarly reported issues with workplace culture and provided examples where executives deliberately try to avoid their obligations. While research suggests that the perceived lack of trust in management to address working conditions is fuelling increased worker activism and public speaking-up against poor practices, the financial pressures are also causing many to stay in their jobs despite experiencing WHS harm, such as burnout.

Workers continue to experience psychosocial harm, including burnout and harassment

Australian employee engagement and job satisfaction is at an all-time low. The Australian WHS Survey that we conducted in January 2023 shows that nearly two-thirds of workers are feeling burnt out. For the Healthcare and Social Assistance workers, the proportion is closer to three-quarters. Similarly, WHS professionals reported feeling "burnt out" by the lack of support to manage and keep up with changing WHS legislative requirements. Australian WHS inspectors report an increase in bullying, harassment, violence, and aggression within workplaces, highlighting that these behaviours are quickly escalating due to increased fatigue and stress. Recent research has shown that such harm is particularly prominent among migrant workers, with more than half of those consulted reporting feeling unsafe at work. Experiences of discrimination, verbal abuse, bullying, and pressure to perform jobs when either untrained or unsafe to do so has been strongly correlated to precarious employment. Poor management practices are now also known to drive workplace bullying rather than personality conflicts, placing further responsibility on business leaders to nurture safe and inclusive workplace cultures.

Flexible working is supporting mental health but can be isolating

The gig economy has boomed over the past year and in a future economic downturn, it may be that the gig economy will continue to grow as workers seek additional income. Research shows that almost half of young workers have a side hustle in addition to their main occupation. Australian WHS inspectors report the gig economy as an industry of concern, commenting that workers may be unlicensed or untrained to safely perform the contracted work. Moreover, inspectors reported difficulties in properly identifying and inspecting the practices of sole traders in the gig economy due to the limited details provided. The flexible characteristics of gig work as well as hybrid working (i.e., mixing home and office work) have

shown to have a positive impact on mental health, serving as a protective factor against burnout. The isolated environment, having limited contact with other workers and managers, is however the most common concern around flexible working. Particularly, middle managers report feeling the pressure, having to bridge the communication gap between workers and the leadership team while often not receiving as much support as workers within this new way of working.

Australian regulators are strengthening action to address WHS concerns

The new Australian Work Health and Safety Strategy 2023-2033 emphasises priority issues around managing psychosocial risk, worker empowerment, and supporting small businesses. It also highlights emerging WHS challenges in AI, complex supply chains, flexible working, gig work, worker demographic shifts and climate change while setting ambitious goals, including a 30% reduction in fatalities and no new cases of silicosis by 2033. Supporting the strong stance on silica is the establishment of a National Occupational Respiratory Disease Registry and the instruction from unions to their members to refuse unsafe work with engineered stone, starting mid-2024. The approach to WHS enforcement is also strengthening as industrial manslaughter laws spread further across Australian jurisdictions and recent prosecutions highlight the seriousness of recklessness, the breach of right-of-entry laws and the chain of responsibility. Moreover, the New South Wales (NSW) Government has recently passed laws making assault of frontline health or emergency services a harsher criminal act, attracting a sentence of up to 14 years in jail. At the federal level, the Prime Minister has committed to ratifying the ILO convention on Eliminating Violence and Harassment in the World of Work.

New areas of regulatory disruption: Al, electric vehicles and professional athletes

While our consultation with workers and inspectors indicate that new technology has the potential to prevent harm, such as apps, wearables, real-time reporting, and AI, it also highlighted that introduced technologies and systems were often not fit for purpose or poorly implemented with limited WHS consideration. This included poor change management, risk assessment and training. The difficulty of implementation is important to consider moving forward as the Federal Government continue to support the development of Australian industries. The National Reconstruction Fund, for example, aims to strengthen manufacturing capabilities in Australia through loans, guarantees and equity, which will undoubtedly include the development of new technology. With tools such as ChatGPT, text-to-image and text-to-video emerging, experts estimate that between 15 to 70% of work done in front of a computer

today can now be automated by AI, including traditionally white-collar work. Regulation in this space needs to keep up and be flexible enough to encompass new developments. For example, our Google Trends analysis shows a higher than global search interest for electric vehicles in Australia in the last five years. However, the storage and use of electric batteries and hydrogen are poorly regulated. Similarly, best practice for first responders responding to lithium battery fires remains under debate. Other areas developing within the WHS regulatory space include supporting workplaces through natural disasters which are becoming more common due to climate change. Moreover, submissions to the current inquiry into concussions and repeated head trauma in contact sport support further review of WHS frameworks and of the exemption of paid professional athletes from current workers compensation schemes.

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Introduction

Work Health and Safety Radar

The Centre for Work Health and Safety Radar synthesises the latest quantitative and qualitative data on pertinent work health and safety (WHS) issues, trends and insights, before they are reflected in incident records. The WHS Radar highlights the current state of play with regard to WHS in and outside of Australia, as well as point to potential WHS issues in the future world of work.

Following the inaugural report in November 2022, the WHS Radar is released biannually to provide regular and actionable insights about WHS in an Australian context.

The WHS Radar will ultimately empower Australian WHS regulators with the insights they need to take a proactive approach to WHS and inform both their existing and future WHS policies, practices and strategies.

Insights from the current iteration of the WHS Radar are derived from:

- 1. The analysis of existing databases (Australian Business Register) and data reports (Australian Bureau of Statistics).
- 2. A review of the international grey and academic literature.
- 3. The analysis of social media data.
- 4. A nationwide survey of Australian workers and organisations across a variety of demographics including employees, employers, businesses, business organisations, and unions.
- 5. A nationwide survey of WHS Inspectors working for Australian regulators associated with the Heads of Workplace Safety Authorities. The authorities work together to promote and implement best practice in WHS in the areas of policy and legislative matters, education and enforcement.
- 6. A nationwide survey of senior WHS professionals associated with the Australian Institute of Health & Safety's College of Fellows. The College comprises members who are making a substantial ongoing contribution to and have a record of achievement in the field of WHS.

General context

This section presents insights that are relevant to all industries from a geopolitical, societal, economic, and regulatory perspective. It also highlights psychosocial and physical harms that have been in the spotlight recently. Finally, it discusses new ways of working and technologies that have recently emerged.

Australian WHS Survey data (Jan 2023)

The Australian WHS Survey conducted in Jan 2023, 1017 workers participated.

Top 3 daily exposures to physical hazards



Repetitive movements with hands / wrists for 3+ hours

49% selected



Standing for over 2 hours straight

26% selected



Working in a bent, twisted, or awkward posture

18% selected



Top 3 enablers of good WHS practices

44.6% Strong leadership and commitment

42.1% Communication and consultation with all workers

41.8% Risk assessment and active management



Top 3 barriers to good WHS practices

44.6% Time constraints & lack of resources

38.3% Prioritising "more important" items

31.1% Cost implications



Top 3 drivers of good WHS practices

37.6% If WHS was more valued by workers

29.9% Impact on business reputation

29.4% Financially rewarding



Worker empowerment



Perceived level of awareness of individual & work WHS rights & responsibilities Perceived level of empowerment to participate in WHS discussions



Perceived level feeling burnout at work





Regularly experiencing a form of harassment at work* Workplace bullying



Regularly experiencing bullying at work*

Workplace WHS systems



Perceived level of active WHS systems in place in the workplace

Workplace WHS commitment



Perceived level of commitment to WHS in the workplace

^{* &#}x27;Regularly' indicates at least monthly

Geopolitical landscape

Australia is likely heading into a "polycrisis": disruptions expected to continue

As the world entered 2023, it continued to grapple with the aftermath and potential resurgence of the COVID-19 pandemic as well as more recent influences of continuing political conflict. The war in Ukraine has sent energy prices soaring, resulting in inflationary pressures. This has further fuelled the global cost-of-living crisis, leading to increased social unrest. Moreover, the frequency of extreme weather events and carbon emissions continue to rise despite international mitigation efforts. The term "polycrisis" describes the era of cascading and interconnected crises in which the world finds itself in early 2023.

The World Economic Forum (WEF) uses the term polycrisis to explain how, "present and future risks can also interact with each other to form a 'polycrisis' – a cluster of related global risks with compounding effects, such that the overall impact exceeds the sum of each part." In Australia, the top risks include the cost-of-living crisis, the debt crisis, rapid and sustained inflation, and geoeconomic confrontation (World Economic Forum, 2023a). These increasing pressures are likely to have a knock-on effect on Australian industries with already-limited resources, including supply chains, workers and customer as well as investors and company overheads. This may create other significant priorities for business leaders that will compete with the importance of WHS.

Preparing for more frequent extreme weather events and natural disasters

2022 was the fifth warmest year on record, as the world reached its highest carbon emission rate yet (NASA, 2023). The WEF Global Risk Report highlighted the climate crisis as the fifth top current risk for Australia. Specifically, the hiatus in emissions reduction and the very unlikely prospects that warming will be limited to 1.5°C. As floods, heatwaves, droughts and other extreme weather events become more severe and frequent, a wider set of populations will be affected. Moreover, while climate mitigation has been overwhelmingly favoured over adaptation in terms of financing to date, particularly in the private sector, climate adaptation to cope with the impacts of extreme weather events may now be seen as a more immediate concern in the short term by business leaders (World Economic Forum, 2023a). Several WHS regulators issued guidance to employers during the summer of 2022-2023 around the risks of heat stress (OHSAlert, 2022a), reminding that indoor workplace temperatures can be higher and more dangerous than those outdoors (OHSAlert, 2023a). In South Australia (SA), WorkSafe SA reminded about the importance of having a business bushfire plan (SafeWork SA, 2023a), while in New Zealand (NZ), WorkSafe NZ published guidance on managing working conditions in areas affected by flooding and cyclone damage (WorkSafe NZ, 2023a),

such as the principles for connecting a generator to the wiring of an installation such as a house or other building when the network power supply has been disrupted as the result of an emergency (WorkSafe NZ, 2023b).

Economy

Economic downturn and shifting job landscape are concerning Australian businesses

In its world employment and social outlooks report (ILO, 2023), the ILO covered the consequences of the polycrisis. This included a continued challenging economic environment, and high and persistent global uncertainty. In Australia, the Reserve Bank is predicting a reduction in GDP growth from 3% in 2022 to 1.5 % in 2023 (PwC, 2023). The economic downturn and the shifting job landscape, including increased worker turnover and a shortage of qualified workers, are concerning businesses in Australia. PwC reports that while many organisations sang the song of growth in 2022, the tune for 2023 will be that of efficiency and productivity, both of which will challenge the priority leaders place on health, safety and worker wellbeing (PwC, 2023).

Businesses plan to invest in supply chain resilience, improve logistics practices and adjust product offerings

The World Trade Organisation, the International Monetary Fund, and 86 % of CEOs surveyed by KPMG (KPMG, 2022) agree that a mild recession is likely in the next 12 month period (Wong, 2022). In Australia, the drivers will be increasing inflation, unemployment and a slowing economy. Labour shortage of skilled workers and continued supply chain disruptions will further inhibit business growth and contribute to declining margins (Ai Group, 2023a). Ninety percent of the 280 businesses surveyed by Ai Group expect staffing shortages in 2023 and managing the workforce more efficiently is going to be a key theme for investment. Similarly, 88 % plan to invest in supply chain resilience, improving their logistics practices, cultivating new suppliers and adjusting their product offering (Ai Group, 2023a). WHS regulators can leverage this period of change to further the priority placed on WHS, including workforce engagement and supply chain management.

Small businesses feel the impact and stress from increased financial pressures

A report by the Australian Chamber of Commerce and Industry has found that a large majority of small business owners experienced higher levels of stress in comparison to pre-COVID-19 times. Business owners also reported mental health and wellbeing as one of the biggest challenges faced by their businesses over the preceding 12 months (Australian Chamber of Commerce and Industry, 2023a).

The latest National Accounts figures show a monthly price growth drop from 8.1 % in December 2022 to 7.4 % in January 2023, suggesting that the efforts to rein in inflation is starting to take effect (Australian Chamber of Commerce and Industry, 2023b). The Australian Chamber of Commerce and Industry has therefore cautioned any plans of the Australian Reserve Bank to further increase interest rates. Continued rises may cripple small businesses seeking loans to hold onto assets and to keep up with operational costs (Australian Chamber of Commerce and Industry, 2023c).

COVID absenteeism is declining

Australian Bureau of Statistics (ABS) labour force data has shown elevated long-term illness-related absenteeism since January 2022. In October 2022, the number of employees working fewer hours than usual due to illness declined sharply by 18% (100,000 people). Normal seasonal patterns of absenteeism did not occur in 2022 and the large decline in absenteeism – which returned Australia to the pre-COVID average – suggests that the effects of COVID-19 are beginning to abate (Ai Group, 2022).

WHS regulation

New national strategy for Work Health and Safety

The new Australian Work Health and Safety Strategy 2023-2033 (Safe Work Australia, 2023a) outlines a national vision and platform for improving WHS. Drawing on key learnings from extensive stakeholder engagement, research and analysis, the strategy lists enablers, actions and shifts aimed at reaching national targets and the primary goal of reduced worker fatalities, injuries and illnesses. This includes embedding good WHS practice, innovating to deepen knowledge, and collaboratively responding to WHS challenges at a national level. This will be achieved through a combination of awareness raising, national coordination, data and intelligence gathering, WHS leadership, and compliance and enforcement. The strategy emphasises priority issues around managing psychosocial risk, worker empowerment, and supporting small businesses. It also highlights emerging WHS challenges in AI, complex supply chains, flexible working, gig work, worker demographic shifts and climate change. With ambitious targets, such as a reduction of fatalities by 30 % and no new cases of silicosis by 2033, the strategy provides an evidence-based, nationally coordinated and collaborative approach to WHS for the next decade.

Industrial manslaughter laws are spreading across Australia

Five of Australia's nine health and safety statutes include industrial manslaughter provisions. These have been enacted *ad hoc* in each jurisdiction to create new manslaughter crimes for officers if their gross negligence (and in at least one jurisdiction, their recklessness) causes a

death of a worker, and in some jurisdictions, other persons (Johnstone, 2023). Currently, the SA Parliament is considering the WHS (Industrial Manslaughter) Amendment Bill 2022. It includes maximum penalties of \$15 million or 20 years' imprisonment for engaging in reckless or grossly negligent conduct that caused a death. The provisions will also cover suicides attributable to workplace bullying and harassment as well as diseases contracted at work, such as asbestos diseases and silicosis (OHSAlert, 2023b).

At a national level, the Boland review of the Model WHS laws (2018) recommended the inclusion of a new offence of gross negligence industrial manslaughter. While rejected by the WHS Ministers in May 2021, there was an agreement by majority at the meeting in February 2023 (Department of Employment and Workplace Relations, 2023a). The inclusion, reflecting in principle Recommendation 23b of the Boland report, is expected to incorporate a jurisdictional note and a model penalty of \$18 million and 20 years' imprisonment.

More jurisdictions ban the practice of using insurance to cover the costs of WHS fines

The use of insurance and indemnity arrangements to cover losses from fines and compensation hinders the intent of harm prevention through financial deterrence. Consequently, the Boland (2018) report recommended prohibiting the practice. Since the release of the Boland report, the practice has been prohibited in three states; NSW, Western Australia (WA) and Victoria (VIC). There has been recent movement among other states to follow suit. The Australian Capital Territory (ACT) Workplace Legislation Amendment Bill 2022 passed Parliament in November 2022 and bans PCBUs from entering insurance contracts against WHS fines. Similarly, the Commonwealth Work Health and Safety Amendment Bill 2022 was introduced on 1 December 2022, proposing similar prohibitions.

Release of SafeWork SA independent review

The independent review of SafeWork SA produced 39 recommendations. Considering the criticisms the organisation received in its previous review, the author finds the agency's internal focus during the past five years unsurprising. The review recommends the agency to now focus outwards with the vision of "securing the safety of workers and workplaces" and a mission to "protect workers and other persons against harm to their health, safety and welfare". Key recommendations included measuring performance against fatality and injury rates, establishing a tripartite oversight and advisory council, and developing a new strategy for supporting HSRs (Merritt, 2022). The SA Government has supported 25 of the recommendations (wholly, partially or in principle), four were rejected and 10 remain to be discussed with its stakeholders (SafeWork SA, 2023b).

Inquiry into head trauma in sport raises questions around WHS for professional athletes

The senate inquiry into concussions and repeated head trauma in contact sport was referred in December 2022 to be reported by 21 June 2023. While the inquiry covers contact sports at all levels, for all genders and age groups, the terms of reference importantly mention exploring workers, or other compensation mechanisms, for players affected by long-term impacts of concussions and repeated head trauma (Parliament of Australia, 2023a). Submissions to the inquiry support a review of WHS frameworks and of the exemption of paid professional athletes from workers compensation schemes (Parliament of Australia, 2023b).

WHS support for high school students before they start their first job

A free safety program for young workers have been released in VIC to inform high school students about their WHS rights and responsibilities before starting their first job. Through interactive tutorials, e-learning modules, videos and activities, the program teaches students how to work safely and empowers them to speak up about safety. The program was developed after new data showing over 600 teens were injured at work in VIC in 2022 (Daily Telegraph, 2023a).

Prosecution highlights

- Record-shattering \$2 million fine (OHSAlert, 2023c): A NSW PCBU was handed a
 record-shattering \$2 million fine for reckless conduct resulting in a major scaffold
 collapse that killed a teenage worker and endangered many others.
- Increased fine 12-fold (OHSAlert, 2023c): The Supreme Court increased a business's chain-of-responsibility fine, for breaches of NSW's version of the Heavy Vehicle National Law, twelvefold on appeal.
- Suspended prison sentence (OHSAlert, 2023c): The second of two Queensland (QLD) duty holders to be prosecuted over the death of a worker, who was run over by a reversing telehandler, was fined \$200,000, while a man was handed a suspended prison sentence for an unintentional act of WHS recklessness.
- Worker on "available duty" while walking dog (OHSAlert, 2023c): A full Tasmanian Supreme Court found a worker who was on "availability duty" when he tripped and broke his leg, while walking his dog, was injured in the course of his employment, noting previous judgments both for and against the worker unnecessarily applied the High Court test for interval injuries.
- WHS judgments weaken push for low entry fines (OHSAlert, 2023d): Union officials have repeatedly breached the Fair Work Act 2009 due to believing they did not need a

right-of-entry permit to enter a site to support resolving a WHS issue. The Fair Work Ombudsman, who took over the case after the abolishment of the Australian Building and Construction Commission, said the midrange penalties highlight the seriousness of breaching the right-of-entry laws in construction.

- Supreme Court examines supplier's duties at fatality site (OHSAlert, 2023e): A crane supplier has been found to have had control over the number of qualified people involved in the use of the supplied crane, or could reasonably have been expected to have such control, and therefore failed to comply with its duty in this regard.
- Labour providers cannot rely on other companies to ensure the health and safety of their workers (OHSAlert, 2023f): A NSW labour provider to roofing companies has been fined for two incidents that occurred just weeks apart. The business was found to have no WHS system of its own, instead relying upon the safety systems of the other companies at the site. Those companies were also prosecuted for WHS contraventions.
- Employer breached worker's safety in disability care: A SA disability support service has admitted breaching workplace safety laws after failing to provide a safe system of work protecting a worker from being sexually assaulted by a client in 2020. This included the service being aware that the client's aggressive behaviour had been escalating, not giving the worker adequate information about the risk the client posed and not performing an adequate risk assessment¹.

¹ Martyn Campbell v SA Support Services Incorporated [2022] SAET 169

Spotlight: Attitudes to work health and safety

Workers more confident in speaking up due to decrease in trust

The Gallup State of the global workplace report suggests that Australian employee engagement and job satisfaction is at an all-time low (Gallup, 2022a). The increased uptake of flexible working in recent years has led to an increase in the use of worker monitoring and productivity measuring tools. These range from calculation of various scores to automatic trackers, "idle" buttons and keyboard activity metrics. In many cases, workers report feeling untrusted and unwilling to maintain productivity or expend discretionary effort (PwC, 2023). PwC reports that workers are now often turning their backs on long working hours, poor job quality, and discretionary effort, to instead seek better conditions, purpose and impact in their work (PwC, 2023). Highlighting the impact on the workers who choose to stay, PwC warns against increasing workloads, reduced performance and eroding team cultures (PwC, 2023).

The perceived lack of trust has also been coupled with increased worker activism and public speaking-up against poor practices. This includes issues such as corruption, environmental, social, and governance issues (ESG issues), and other social agendas. PwC (2023) writes:

"Overall, employees are more confident to speak up, speak out, and reject traditional workplace norms that they disagree with" (PwC, 2023).

This propensity likely extends to WHS and other industrial relations matters. For example, the interpretation of "reasonable working hours" have recently been examined in a case (Maurice Blackburn Lawyers, 2023) under the *Fair Work Act 2009*, exploring whether an employee can refuse to work extra hours if they deem the request unreasonable (Carabetta, 2023).

C-Suite is disinterested in WHS

The annual KPMG survey report (n= 473; KPMG, 2023) on the concerns of corporate executives lists digital transformation, cyber security and worker digital skills as key challenges keeping them up at night. While it points out dealing with regulatory changes among the top five challenges, only one in four is concerned about health risks (incl., COVID-19), ESG strategy, managing remote workers, de-risking supply chains and embedding innovation and purpose into organisational culture. Overall, the report may be interpreted as the C-suite being disinterested in WHS (SafetyatWorkBlog, 2023).

Singaporean Code of Practice for Chief Executives and Board of Directors WHS Duties

Chief Executives and the Board of Directors (known as "Company Directors") oversee the management and steer the operations of their organisation. Their influence and authority are key to driving WHS standards in the workplace. The Ministry of Manpower has recently developed a Code of Practice to provide clarity and strengthen WHS ownership (MOM, 2022a).

It provides four principles: 1: Integrating WHS through clear roles and responsibilities, 2: Continuously building a culture for WHS through leadership, 3: Maintaining WHS management systems, and 4: Empowering workers to actively engage in WHS.

Workers report a decreasing consideration of WHS in their workplace

The Australian WHS Survey (2023) indicate a lack of or decreasing consideration of WHS in Australian workplaces.

"People see safety as additional admin burden rather than the way work should be done" (Australian WHS Survey - respondent 1)

"Attitudes of Managers & Leaders are not conducive to a proactive WHS culture at my workplace." (Australian WHS Survey - respondent 2)

Respondents also expressed concerns about the lack of commitment to implementing WHS guidelines, resources and training released by regulators, or peak industry bodies.

"Psychosocial injury stuff [guidelines] is great- but nobody in leadership seems to be implementing it or trained in it" (Australian WHS Survey - respondent 3)

Some of the emerging drivers raised by the respondents were:

- The emergence of a degree of complacency and acceptance of unsafe practices,
 particularly in the face of increasing work demands and pressure
- The entry of younger, inexperienced workers who do not have adequate knowledge and training in WHS
- The resistance of older workers to adapt to new WHS standards and processes
- The lack of awareness and commitment in leaders to prevent and respond to WHS
 issues in the workplace, with examples of insufficient response to WHS issues even
 when staff raised them
- The lack of, or ineffectiveness of, WHS processes
- The de-prioritisation of achieving safety outcomes by leaders in comparison to meeting financial or business objectives

Workers report relaxed attitudes and lack of commitment to WHS

An example of increasingly relaxed attitudes towards WHS include those toward managing COVID-19. Respondents of the Australian WHS Survey indicated that since "return to the office" policies started being implemented, there have been relaxed infection control and Personal Protective Equipment (PPE) requirements. This has caused concerns about safety at work, especially around the workplace using adequate ventilation but also around the attitudes of staff who are coming into work unwell.

Inspectors report PCBUs lack understanding, respect and willingness to work with the regulator

Similar to the respondents of the Australian WHS Survey, WHS inspectors also reported observing a lack of understanding of WHS from PCBUs. This also included understanding the role the regulator plays as well as lack of respect, and unwillingness to work with inspectors.

Many of the workplaces I attend have little or no awareness of the safety regulator's role or existence. (Inspector 1)

This was supported by another inspector who noted the lack of profile for the inspectorate.

Increasing lack of safety and compliance due to our identity and worksite profile being lost, businesses rarely see an Inspector, and most businesses never. The need to raise the Inspectorates profile to industry is essential. (Inspector 2)

One inspector observed that there are PCBUs who make no effort to educate themselves.

Employers and workers have no understanding of their duties under the WH&S Act despite the Act being in place for 10 years. Employers, managers and CEOs make no effort to educate themselves and I believe employers have made a business decision to risk infringements or prosecutions rather than apply safe work practices.

(Inspector 3)

Another inspector reported that PCBUs are noticing that there are not enough inspectors "on the ground" to ensure compliance.

More and more businesses are stating that there is just not enough inspectors on the ground to ensure that businesses are complying with their WHS obligations, and that businesses are starting to say if the PCBU next door isn't complying then why should I have to go to all the effort to comply. (Inspector 4)

The inspectors also reported increased pushback from PCBUs along with increased involvement of solicitors and claims of legal professional privilege.

Inspectors report poor workplace culture - "profit before people" and "she'll be right"

Consultations with inspectors indicated a perceived reluctance from PCBUs to comply with WHS, with some PCBUs believing that WHS does not apply to them and others that some control measures are not practical to implement, so do not implement them.

The respondents reported that financial strain may be influencing PCBUs, and that COVID-19 has affected work ethics and behaviours, where cost and shortcuts are now common. One inspector stated there appears to be a "profit before people" attitude.

Some workers and PCBU's have a poor attitude towards safety and continually take risks to get the job done- they are willing to push the envelope and if they can get away without implementing, for example edge protection on one project, they see this as a cost saving measure and are willing to keep running the risk. (Inspector 5)

The inspectors also reported complacency as PCBUs exhibit a "she'll be right" attitude and appearing to be more accepting of safety shortfalls.

New managers are unacceptably tolerant of hazards that can alter their workers' lives forever. Sometimes in mining, people are being given the all-clear to work in this more hazardous environment, than is appropriate for them. (Inspector 6)

The inspectors also reported that some PCBUs have decided it is more affordable to be fined than to put safe systems in place.

There is a general sense that it is more affordable to be fined, than to have safe systems of work in place. The idea is that organisations know we don't have enough inspectors to be everywhere, so they risk not having enough resources to complete high risk activities and feel that it is cheaper to pay the fine than it is to have any system in place. (Inspector 7)

A resistance to change among PCBUs was also reported.

The work carried out on the sites I visit is conducted as employers were trained 40 years ago when they learnt their trade. Employers do not know what they are required to do under the Act and revert to their learnt behaviour. They say to me "I have been doing it like this for 40 years and I have never been hurt" and they expect their workers and apprentices to follow their unsafe work practices. (Inspector 8)

One inspector attributed the change in attitude from employers and workers regarding the necessity of managing WHS to the post-COVID return to the office. Particularly, in relation to the reluctance of PCBUs to allocate funds and resources to WHS. Another inspector noted inexperience resulting from the retirement of the ageing working population as contributing to changing attitudes:

With the ageing working population, experience is retiring. There is a lack of firsthand exposure to the outcomes of high-risk potential events. Thus, the tolerance and acceptability has shifted from this ignorance. (Inspector 9)

Another inspector noted the predictability of the regulator's actions due to using the enforcement pyramid model to inform regulatory action. This has reduced WHS into one of many regulatory risks to be managed based on the organisation's risk appetite.

The pyramid of enforcement makes regulators actions predictable, the knowledge that we will pursue education before punishment, and that all regulators are severely under-resourced means that large risk and management consultancies now consider non-compliance to be an acceptable risk to take in many circumstances. We have been added to their matrices as a "regulatory risk" and their appetite will govern whether or not they choose to comply with the legislation. (Inspector 10)

The inspectors also reported growing industry interference, including large industry players increasingly pushing back at regulatory efforts. Industry bodies were reported to support members in non-compliance due to misunderstanding the legislation.

Active interference by industry groups using politics and personal attack on inspectors to achieve reduction in scrutiny. (Inspector 11)

Inspectors are experiencing an increase in violence and aggression from PCBUs

Some inspectors advised of an increase in bullying, aggression, and violence towards them from employers and employees (n=12) with one noting that it is the result of enforcing the compliance and enforcement policy and issuing hefty fines to builders and sub-contractors.

Some managers I have had dealings with are aggressive and ignorant. Some managers are out of their depth and are just pretenders in their roles as managers or health and safety managers. Some of these managers try to bully or intimidate inspectors and threaten Inspectors when they realise, they may be accountable for their lack of compliance with the WH&S (NUL) Act. Sometimes these threats are subtle and sometimes overt. (Inspector 12)

One inspector reported that the increased aggression and resistance amongst industry is likely correlated with a general increasing disrespect for the government.

WHS professionals report reluctance among business leaders

Our consultation with senior WHS professionals also indicated issues with workplace culture and highlighted the reluctance of executive managers uphold their obligations.

I have spoken at a series of events concerning the new legislation, and whilst there were some technical questions, I was taken aback by senior people who appeared to be asking questions along the lines of "Do I really have to do that...?" (WHS professional 1).

Psychosocial harm

Harassment, violence and aggression

Workers continue to experience abuse and assault

A recent survey has reported that nearly half of migrant workers feel unsafe at work (the Guardian, 2023). This was strongly correlated to precarious employment, with respondents retelling experiences of discrimination, verbal abuse, bullying, and pressure to perform jobs when either untrained or unsafe to do so (the Guardian, 2023). A recent tragic example of fatal assault in the gig economy includes that of an Uber driver in February 2023. Two teenagers who were passengers at the time of the death have been arrested and charged with the murder (Pedestrian, 2023).

State and Federal Governments consider laws to prevent work-related violence

Addressing work-related violence has been a priority for State and Federal Governments, with Prime Minister Anthony Albanese committing to ratifying the ILO convention on Eliminating Violence and Harassment in the World of Work. This commitment would require Australia to ensure its laws provide a framework for prohibition of all forms of workplace violence and harassment (Department of Employment and Workplace Relations, 2022a).

In NSW, the Government has passed recent laws making assault of frontline health or emergency services workers a harsher criminal act, attracting a sentence of up to 14 years in jail. The reforms were made in response to the NSW Sentencing Council's report "Assaults on Emergency Services Workers" and is designed to protect frontline workers who experience high rates of psychological injury and physical assault (NSW Government, 2023a). The peak retail bodies, the Australian Retailers Association and the Shop Distributive and Allied Employees Association, have lobbied State and Territory governments to introduce similar tougher penalties for assault on retail workers, citing increased aggression since the pandemic. In 2022, SA introduced a penalty of up to 7 years in jail for assault on a retail worker, while the recently elected NSW Government made a commitment whilst in opposition to introduce similar tougher penalties (ARA, 2023).

Sexual harassment

Workplace sexual harassment is affecting a third of workers

The fifth national survey by the Australian Human Rights Commission focused on workers' views of employers' efforts to address workplace sexual harassment. With over 10,000 respondents, one third had experienced workplace sexual harassment within the last 5 years. The survey found that half of reported incidents are repeated and half of this again were ongoing for more than a year (AHRC, 2022). The Australian WHS Survey indicates that female-identifying workers and diverse-identifying workers (i.e., CALD, ATSI, migrant, LGBTQIA+ or disability) are more at risk to experience sexual harassment in the workplace. About one out of five female-identifying respondents and diverse-identifying respondents experienced sexual harassment in the last twelve months compared to one out of ten for male-identifying respondents, and respondents not identifying as diverse.

Toxic work culture in national health regulator

Australian Health Practitioner Regulation Agency (AHPRA) has been accused of systemic issues including chronic under-resourcing, bullying and a toxic work culture along with racism, delays and lack of transparency when investigating allegations of misconduct. This has had flow-on effects for patient safety and professional registrations (the Age, 2023). Despite previous reviews raising recommendations to addressing these issues, AHPRA has been slow to implement them. The Federal Health Minister has called for a rapid review in February 2023 after the issues were raised again during a six-month investigation by news program Four Corners into cases of sexual misconduct by health professionals where professionals with allegations or findings of sexual misconduct had been able to continue practicing (ABC News, 2023a).

Male-female team integration can improve safety culture

A Curtin University study conducted as part of the Mental Awareness, Respect and Safety program has found that proactively integrating male and female workers in male-dominated workplaces can reduce discrimination and promote safer cultures (OHSAlert, 2023g). The first report from the program (WA Government, 2022a) highlights that team composition-related interventions can promote respect and equality norms, and alter unsafe stereotypes while the second report provides a review of the current literature (WA Government, 2022b). The WA Government has committed to amending its WHS laws to tackle psychosocial hazards in a progress report on its implementation of recommendations from the Mental Awareness, Respect and Safety program (WA Government, 2023).

Addressing workplace sexual harassment is a key focus of state, territory and federal Governments

The Fair Work Legislation Amendment (Secure Jobs, Better Pay) Bill 2022 has passed Federal Parliament. The Act expressly prohibits workplace sexual harassment and provides dispute resolution avenues. The development follows the release of the results of the Australian Human Rights Commission's fifth national survey on the prevalence of such harassment (Department of Employment and Workplace Relations, 2022b). Similarly, in November 2022, the ACT Parliament passed the ACT Workplace Legislation Amendment Bill 2022, making workplace sexual assault a notifiable WHS incident.

Industry addressing workplace sexual harassment by developing and implementing tools

The Legal Profession Board of Tasmania recently launched the Speak Safely reporting tool. This tool allows people working in the legal profession in Tasmania to report sexual harassment confidentially and anonymously. Tasmania is the third jurisdiction to implement the tool, which allows complainants to report at any time via online reporting and has trauma experts in place to assist if required (OHSAlert, 2023h).

In Mining, three major players recently launched the Building Safe and Respectful Workplaces pilot program in response to reports of sexual harassment in the industry. The organisations worked with leading experts to design and develop an industry-first program aimed at educating new entrants to the sector. The evidence-based program is aimed at educating participants about the impact of sexual harassment, bullying, and racism, and also educates how to recognise and report these behaviours (SafetoWork, 2023).

The World Health Organization (WHO) Management Response Plan is another industry intervention which came about after an independent review found evidence of serious sexual misconduct by some WHO staff during the Ebola outbreak in West African nations in 2013. An update in January 2023 on progress made by the WHO to meet recommendations made in the Plan stated that 90 % of staff globally have completed two mandatory courses relating to sexual misconduct. The WHO also assisted in the development of a toolkit to be used across the United Nations and engaged approximately 30,000 staff through its "No Excuses" webinars and outreach (WHO, 2023).

Workplace bullying

New screening tool shows risks areas that lead to bullying

A study by the University of SA has found that organisational structures, not personality conflicts, are the drivers of workplace bullying, which affects 10 % of employees. A review of 342 bullying complaints received by SafeWork SA found "poor management practices" as the root cause of bullying. From this, researchers have developed an evidence-based bullying audit tool that identifies nine major risk contexts for workplace bullying embedded in day-to-day practices, putting the onus on organisations to address the problem (UniSA, 2022). The nine risks contexts are:

- 1. Rostering, scheduling, and working hours
- 2. Administering leave and entitlements
- 3. Clarifying and defining job roles
- 4. Providing training, development, and personal growth
- 5. Appraising and rewarding job performance
- 6. Managing tasks and workloads
- 7. Managing underperformance
- 8. Managing interpersonal and team relationships
- 9. Maintaining a safe environment

Mental health

Mental health concerns in the post-pandemic era remains high, particularly among primeaged workers and females

An Australian report released in March 2023, based on a survey of 1400 workers, found that prime-aged workers between 18-54 years reported worse mental health than those 55 years and over (Ruppanner et al., 2023). Notably, a third of prime-aged workers were considering quitting their current job, compared to 20 % of older workers. A similar age gap, alongside a gender gap, has also been found in other studies, with a recent report showing females having a 32 % higher rate of burnout than males, and younger workers experiencing burnout at a rate of 49 % compared to 38 % among workers over 30 years (Robinson, 2023).

Despite high rates of burnout, financial pressures, particularly those caused by increasing inflation and interest rates, have demonstrated a reduction on attrition. A recent study showed that three quarters of employees will stay in their jobs, despite over half of them experiencing burnout, due to these financial pressures (Molla, 2022).

New South Wales Government exploring principles for healthy work

SafeWork NSW has proposed seven principles to guide discussion and inform the future Healthy Work Plan for NSW. SafeWork NSW conducted a survey on workers' thoughts on these principles, which closed in February 2023 and the feedback is now under review (NSW Government, 2023b). The principles are:

- 1. Healthy Work is good for business
- 2. Leadership is fundamental to creating Healthy Work
- 3. Creation of Health Work relies on worker participation
- 4. Design work to be healthy
- 5. Healthy Work can positively influence lives
- 6. A strategic coordinated approach is required to achieve Healthy Work
- 7. Healthy Work is built on a foundation of safety

New service in South Australia to support healthy workplaces

SafeWork SA has partnered with Wellbeing SA, the Department for Industry, Innovation and Science, ReturnToWorkSA and the Officer of the Commissioner for Public Sector Employment to deliver the new Healthy Workplaces service. The service helps employers create a workplace supportive of mental and physical health and wellbeing with a focus on prevention through proactive steps and offers free, practical information and resources (SafeWork SA, 2022).

Federal funding has been committed to support mental health services for nurses and midwives

In November 2022, the Federal Government committed \$25.2 million to establish a National Nurse and Midwife Health Service, which would deliver support and referrals to practicing nurses, midwives and students by nurses and midwives (The Hon Kearney MP, 2022). This support would include counselling services and other supports to reduce burnout and associated fatigue and stress in acknowledgement of the increased levels spurred on by the pandemic. This model was based on the Victorian Nursing and Midwifery Health Program that has been in operation since 2006.

Workers' Compensation body changes options for psychological claims process

An iCare-funded research project identified the main causes of the high psychological injury rate identified in the healthcare sector to be harassment and bullying, work pressure, and occupational violence, with exposure to trauma also high for ambulance workers (USYD,

2022). Meanwhile iCare announced new claims agents, including Allianz and QBE, and a new approach to managing psychological injury claims. Employers can now choose between generalist claims providers or specialists, including those with an expertise in managing psychological claims (iCare, 2023).

Being off work sick or injured linked to suicide risk

New research from Monash University has found that people who are off work due to injury or illness have an elevated risk of suicidality and intentional self-harm. The report came from an analysis of 47 studies over 20 years from 16 separate nations, with 44 finding an increased risk of suicide. The longer the period of time off work, the higher the risk. The report noted that there may be other factors that influence this elevated risk, including receiving poor medical care, having other issues that impede recovery such as addiction, or avoidance of seeking medical care. The researchers also found a number of factors that increase the risk of suicide, such as being younger, living alone, and having a history of poor physical or mental health (Collie & Gray, 2022; Monash, 2022).

Pilot program to support fishers' experiences of mental health issues

The seafood industry has established a pilot program to support the mental health of those in the commercial fishing industry after it was found that they experienced mental health issues at twice the rate of the rest of the population. The pilot program gave access to a mental health first aid officer who was able to respond quickly to traumatic events, such as witnessing the drowning of work colleagues. The pilot has now received \$1.5 million in Federal Government funding to be further rolled out (ABC News, 2023b).

Health sector workers perceived higher exposure to discrimination and harassment

The Australian WHS Survey found that workers from the Healthcare sector feel more exposed to hazards, including harassment, sexual harassment and bullying, than workers in other industries. Almost one out of two Healthcare workers experienced at least one form of harassment or bullying on a monthly basis, and there are indications that sexual harassment is also more predominant in this industry.

Link between physical contamination and mental health in fire fighters

A recent study from the United Kingdom found that firefighters who reported soot in their nose or throat, who wore PPE for more than four hours after a fire, who took PPE home to clean, or who reported sleeping problems were at greater risk of reporting mental health disorders. These findings allow for greater focus on decontamination measures and wellbeing of firefighters to support better mental health (Wolffe et al., 2023).

Workers do not believe employers are handling bullying and harassment effectively

Respondents of the Australian WHS survey perceived a high degree of mismanagement of instances of bullying and/or harassment in the workplace (n=42). Respondents reported varying types of bullying and harassment, including physical violence and aggression, racism and discrimination including that based on gender, sexual orientation, toward women and mothers, and toward older workers.

"Bullying is tolerated and increasing... allegations were not taken seriously by senior management." (Australian WHS Survey - respondent 3)

Respondents were critical of their organisation's approach to tackling these issues, most of whom noted little action was taken even after the issue had been reported in their workplace.

Workers report increasing psychosocial issues

Respondents of the Australian WHS Survey also shared their experience of increasing psychosocial issues in their workplace, including stress and poor mental health. This was echoed by the WHS inspectors who also reported an increase in bullying, harassment, violence, and aggression within workplaces. Two inspectors reported aggressive union relationships in the construction industry and another noted the increase of physical aggression in schools.

The inspectors reported that harmful behaviour is likely escalating due to fatigue and stress and that complaints regarding sexual harassment are increasing, especially in the mining industry,

Increase in sexual harassment complaints, occupational violence, self-harm and workplace bullying/harassment complaints. (Inspector 13)

The respondents of the Australian WHS Survey noted understaffing in organisations, along with the isolating effect of working from home arrangements as the main drivers of psychosocial harm.

"I have noticed that there is a growing number of staff who are mentally overwhelmed" (Australian WHS Survey - respondent 4)

The respondents indicated that awareness of, and practices to reduce, psychosocial issues were increasing, particularly since the introduction of the new WHS model regulations and Code of Practice on addressing psychosocial hazards. However, more practical guidance and organisational leadership and commitment are needed to put effective systems in place.

There is a normalisation of staff shortage and constant turnover

Respondents of the Australian WHS Survey frequently raised that chronic staff shortages, high staff turnover and, as a result, the introduction of inexperienced workers, led to

increasingly unsafe work practices. Most respondents indicated that, due to a currently tight labour market, operating with staffing shortages and inexperienced labour was increasingly becoming normalised in their workplace.

"Working short staffed is the new norm by majority of staff...Business as usual [pressures continue] even though the required amount of staff are not on shift" (Australian WHS Survey - respondent 5)

"Extreme short staffing which means most people cutting corners and this is encouraged by management in order to get the job done with less people."

(Australian WHS Survey - respondent 6)

Respondents felt they did not have time to complete work safely, or time to develop skills within the organisation to operate and/or monitor safety; and little capacity to train new staff.

This was also reported by the WHS inspectors, identifying staff shortages as a major driver of non-compliance. Besides psychosocial risks, such as fatigue and burnout, the staff shortages are also increasing staff turnover and the placement of unskilled staff in skilled positions which, coupled with increasing workloads, time constraints, poor training and inadequate supervision, are resulting in unsafe work practices.

PCBUs are constantly lamenting how hard it is to find and keep workers in the current climate. This often leads to inexperienced and sometimes inadequately trained workers. Many rural employers rely on seasonal workers (often from O/S), many of those experienced/competent workers left during the COVID pandemic and have not returned. The worker shortage has also seen many workers "rise to their level of incompetence" (and beyond!) (Inspector 14)

All industries are short staffed hence poor training and supervision this included initial training on the job but little if any follow up training. Thus, workers are exposed to more traditional hazards that would have been controlled by adequate training. (Inspector 15)

One inspector made the point that staff shortages have increased the difficulty PCBUs have in disciplining staff for "bad behaviour" for fear of losing workers.

Lower safety standards/quality because companies cannot discipline bad behaviour in fear of losing workers and not being able to replace them. (Inspector 16)

Other inspectors raised concerns that PCBU staff shortages has increased the use of apprentices as cheap labour, highlighting again the inadequacy of training and lack of supervision of said apprentices.

WHS Professionals report lack of trained and experienced WHS professionals is contributing to risks in the workplace

Short staffing and the lack of "practically minded persons to work in safety throughout industry" was also cited in our consultation with WHS professionals as an emerging issue. This included inexperienced WHS professionals being promoted to roles they are not yet suited for.

Low experience OHS professionals rapidly changing jobs and getting promoted in current job market becoming senior professionals very quickly creating risk of decision makers lacking skills, knowledge and/or experience to effectively manage OHS. (WHS Professional 2)

One respondent noted that WHS professionals are feeling "burnt out" by the lack of support to manage and keep up with changing legislative requirements.

Spotlight: Burnout

Burnout is defined as the result of chronic workplace stress that has not been successfully managed (Molla, 2022), a condition that results from excessive work that places considerable mental and even physical strain on the worker, making everyday activities difficult (Australia Wide First Aid, 2023). Symptoms include poor quality sleep, daytime fatigue, inability to focus, loss of motivation, symptoms of anxiety and/or depression and/or excessive worry about work.

Incidence and prevalence of burnout among workers is high

The onset of the COVID-19 pandemic triggered considerable research to assess levels of burnout amongst workers. A tell-tale sign of a worrying increase was the search term "burnout symptoms" on Google hitting its highest peak in May 2022 (Ferrazzi & Jimenez, 2022). Our analysis of Twitter 'tweets' between March 2022 and February 2023 found over 33,000 containing words related to burnout, including 'stress', 'feel', 'avoid' and 'leave'. A tweet that read "Pushing yourself too hard at work can lead to burnout" was retweeted over 19,000 times.

Globally, 50 % of workers and 53 % of managers are experiencing burnout in the post-pandemic period (Card, 2022). A recent Belgian study found the median prevalence of burnout of 71.6 % amongst hospital staff, although used a broader definition of burnout (Bruyneel et al., 2023). Another study found half of nurses who intended to leave their roles were doing so due to negative effects on their mental wellbeing (Naegle et al., 2023). This rate was even higher among C-suite workers at 70 % (Robinson, 2023).

Excessive job demands can lead to burnout

Unmanageable workloads increase the risk of burnout. A recent survey found the risk increases significantly once a worker exceeds 50 hours of work per week, where tasks are excessive or lack clarity, or when unrealistic deadlines are imposed (EmploySure, 2023). Another study found that nurses with a higher patient-to-nurse ratio had a heightened risk for emotional exhaustion, which is synonymous with burnout (Bruyneel et al., 2023).

COVID-19 was a trigger for higher rates of burnout that continue to persist

Despite more than three years passing since the onset of COVID-19, the impacts on mental health are persisting. The pandemic created an environment of ambiguity, decreases in

demand of industries such as tourism and hospitality, and subsequent cuts to wages, jobs, and working hours (Dorta-Afonso et al., 2023). Rather than burnout easing as the pandemic subsides, the experience appears to continue to increase in some sectors (Molla, 2022).

An Australian survey conducted in 2022 found that almost half of workers with caregiving responsibilities believed they were working harder than before the pandemic and over half were exhausted, with the closure of care facilities and schools adding to their burden (Ruppanner et al., 2023). Nearly three quarters of workers with chronic illness stated that their job had either caused or worsened their health condition and two thirds with a chronic illness felt exhausted. A 2023 survey in the United States (US) found that over half of respondents had experienced an increase in workload since the pandemic began, with increases as high as 80 % for healthcare workers (Gerding et al., 2023).

Workplace culture and job design can improve or exacerbate burnout

The culture of a workplace and the way roles are structured can impact the risk of burnout in the following ways:

- Flexibility workers with full schedule flexibility have 29 % higher productivity and a 53 % better ability to focus than those with no flexibility (Robinson, 2023)
- Perceived pressure to meet deadlines
- Excessive control by managers over the workers and the environment
- Perceptions of unfair treatment, including favouritism or discrimination (EmploySure, 2023)
- A lack of autonomy to make decisions that affect their pace of work (Gerding et al., 2023) or their job design (WHO & ILO, 2022)
- Fully in-office work workers with remote and hybrid work options feel more connected to their employer and their teams (Robinson, 2023)

Consequences of burnout can be physical, psychological, financial and behavioural

Work-related burnout can result in a range of consequences, including:

- Lower job satisfaction 55 % of employees with high levels of burnout have low job satisfaction (Aflac, 2022).
- Higher intentions to leave their job 56 % of employees with high levels of burnout intend to look for another job within the next twelve months. Employees experiencing burnout are 2.6 times more likely to be actively looking for another job (EmploySure, 2023).

- Physical manifestations, such as insomnia, elevated blood pressure, Type II Diabetes
 Mellitus, heart disease and lowered immune responses (Australia Wide First Aid, 2023;
 Ervasti & Kivimaki, 2023).
- Elevated risk of unhealthy alcohol consumption (Australia Wide First Aid, 2023).
- Dysfunction coping, increased burnout symptomology and undermining of self (Bakker et al., 2023).
- Financial and productivity related consequences including elevated absenteeism and attrition (Dorta-Afonso et al., 2023). Employees experiencing burnout are 63 % more likely to use sick leave entitlements (EmploySure, 2023) and are 35 % less productive (Oman, 2023).
- Depression, anxiety and even suicidality (World Health Organization & International Labour Organization, 2022).
- Risky or risk-taking behaviours. Burnout is the biggest cause of risky behaviour by food delivery riders (Nguyen-Phuoc et al., 2023).

High performance work systems and other job design measures reduce burnout

A 2023 study found that high performance work systems have a direct positive effect on job satisfaction and an indirect effect on preventing burnout (Dorta-Afonso et al., 2023). High performance work systems create an environment that facilitates greater worker involvement and responsibility, creating greater skills, motivation and commitment to organisational goals.

Other measures that prevent and mitigate burnout, and that can be implemented directly by organisations, include:

- Allowing adequate time for planning when planning time is perceived as adequate, and strong support from administrative staff is provided early in the academic year, teachers are significantly less likely to experience emotional exhaustion (Brunsting et al., 2023)
- Establishing clear work-life boundaries through organisational culture such as no emails on weekends, shortened meetings, and cultural norms around discussing wellbeing openly and honestly (Oman, 2023)
- Incorporating wellbeing and psychological safety training into leadership development to promote this as a core management skill (Oman, 2023)
- A hybrid mix of home and office work has a positive effect on mental health, a protective factor against burnout as it minimises disruptions to work-life balance while

building and maintaining social connectivity with colleagues through some face-to-face contact (Card, 2022).

Al applications can monitor and respond to wellbeing

Smartphone applications are a burgeoning component of WHS promotion. A recent partnership between the NSW Government's Centre for Work Health and Safety and tech company Pioneera has been examining the use of an online wellbeing app in burnout prevention (Cyber Security NSW, 2022). This app uses a mix of psychology, natural language processing and sentiment analysis to create personalised messages to users that can 'nudge' them when signs of preliminary burnout are found. These nudges provide tips and information on how to manage stress, delivered in real-time.

Physical harm

Electrical safety

Safety reforms in Tasmania introduces a new modern and flexible legal framework for electrical safety

The Tasmanian government's *Electricity Safety Bill 2022* recently passed Parliament. The new reforms consolidate existing safety laws and provides a modern legislative framework that reduces duplication and improves flexibility adopting and managing new electrical technologies as they develop (OHSAlert, 2023c).

New South Wales introduces new on-the-spot fines for electrical safety

The number of offences that can attract an on-the-spot fine (also known as an infringement notice or penalty notice) has been increased to include electrical safety. Specifically, the offences relate to: 1. Disconnection of unsafe electrical equipment, 2. Inadvertently reenergising de-energised electrical equipment, 3. Use of socket outlets in a hostile operating environment, and 4, Working at unsafe distances to an overhead or underground electric line (OHSAlert, 2022b).

Queensland Electrical LEAD toolkit to improve safety leadership

A new toolkit has been released by WorkSafe QLD tailored specifically to the electrical industry. The evidence-based toolkit was trialled with 26 small, medium and large businesses in 2020, demonstrating positive feedback on safety leadership and electrical safety culture (WorkSafe QLD, 2023b).

Governments have released consumer warnings about safe use and charging of lithium-ion batteries

There are approximately 250,000 electric scooters in use in Australia. Following a recent spike in news stories about incidents relating to the charging of electric scooters, the QLD Electrical Safety Office has released guidance to support users (SafeWork QLD, 2023c).

Consumer Protection WA has also issued a critical public warning about issues associated with lithium-Ion batteries, as the number of structural fires caused by batteries rose to between 50 to 60 in 2022. Lithium battery fires can be difficult to extinguish and cause the release of toxic and explosive gases (ABC News, 2022).

WorkSafe NZ has also emphasised the hazards associated with lithium-ion batteries through sharing an incident of a tunnel fire, initiated by a lithium-ion battery-powered sabre saw in a toolbox. To curb the risk of fires, WorkSafe NZ advices PCBUs to remove batteries from tools

when not in use, avoid storing tools together, charge tools above ground, and alert workers to the potential for battery fires (WorkSafe NZ, 2022).

Silica dust

Ministers discuss the Safe Work Australia decision regulation impact statement

At the meeting of the WHS Ministers in February 2023, the Ministers affirmed their shared commitment to prevention of silicosis and the endorsed the goal of the Australian WHS Strategy 2023-2033 of no new cases of silicosis in 2033. Reviewing the Safe Work Australia decision regulation impact statement (Safe Work Australia, 2023b), the Ministers agreed to delivering national awareness and behaviour change initiatives, in partnership with employers and unions. They also agreed to stronger regulation of high-risk crystalline silica processes for all materials (including engineered stone) across all industries. This includes additional training requirements; a requirement to conduct air monitoring and report workplace exposure standard exceedances to the relevant regulator; and scoping new and updated model Codes of Practice for at-risk industries. Further analysis and consultation were also called for on the potential of a ban of the use of engineered stone under the Model WHS laws, including consideration of silica content levels and other risk factors, and including consideration of a national licensing system for products that are not subject to a ban or legacy products (Department of Employment and Workplace Relations, 2023a).

Consultation opens on proposed ban of engineered stone

Safe Work Australia has commenced the next stage of consultation on a prohibition on the use of engineered stone. The public consultation paper has been released through Safe Work Australia's Engage website and submissions will be open until 2 April 2023. Stakeholder feedback from the consultation will inform a Safe Work Australia report to be provided to WHS Ministers for their consideration (Safe Work Australia, 2023c).

Unions take a strong stand on silicosis

The union that represents stonemasons, the Construction, Forestry, Maritime, Mining and Energy Union (CMFEU) is threatening to refuse to work with engineered stone products from July 2024 (CFMEU, 2023). Workers have a right to refuse work that they reasonably consider poses a threat to their safety and wellbeing. Builders are against a ban, instead calling for collaboration to accommodate the materials specified by clients.

A few of the consulted WHS inspectors also reported that technological advances in tools use to work with silica-containing products have not considered the safety needs of workers, such as polishing cement equipment.

Federal legislation to introduce silicosis registry

The Australian Government is establishing a National Occupational Respiratory Disease Registry to record the nature and extent of occupational respiratory diseases in Australia (Department of Health and Aged Care, 2023). The aim of the registry is to capture and share data on the incidence of disease, causative exposures and respiratory health data to aid detection of new and emerging threats to worker's health, inform incidence trends, and assist in targeting and monitoring the effectiveness of interventions and prevention strategies. Draft legislation supporting the implementation of the registry was released in November 2022 and is expected to be introduced in the second half of 2023. Passing of the legislation will require doctors to report cases of silicosis (SMH, 2023).

New ways of working

Gig economy

The gig economy has boomed over the past year

Despite low unemployment in the US, organisations such as Uber and Lyft are reporting a steady rebound after the sharp decline during the COVID-19 pandemic. One reason may be the flexibility of gig work, allowing workers to work in a way that is more aligned to their lifestyle. Another may be the increasing cost-of-living. In its second-quarter earnings, Uber reported that 70 % of their new drivers noted cost-of-living as a key influence on their decision to join (NYTimes, 2022). Similarly, Fiverr Business report that 45 % of bigger businesses in the US have increased their investment in freelancers since the pandemic and that the larger the business, the more often they tap into freelance services (Businesswire, 2021). In a future economic downturn, it may be that the gig economy will continue to grow as workers seek additional income. However, increased availability of workers may coincide with a decrease in demand as consumers reduce spending.

Record high number of Australians hold two or more jobs

A national survey of 1500 young workers (15-24 years) found that 42 % have a side hustle with 31 % reporting they are thinking about getting into it (Youthsense, nd). From self-started businesses and income-generating hobbies to the showcasing of personalities on social media, the increase in secondary employment has been topic of great debate, suggesting that starting side hustles to generate additional income streams is becoming more common (LinkedIn News Australia, 2022). ABS data in the June quarter of 2022 showed a record-high of 6.5 % of all employed people holding two or more jobs. The number of secondary jobs has also increased, showing that more people hold more than two jobs at the same time (ABS, 2022a). From a productivity perspective, side hustles have been met with great resistance but are increasingly becoming encouraged and leveraged as incubators for new lines of business in order to support employee retention (ChiefExecutive, nd).

Regulation of Gig workers is a prominent topic for current research

The first edition of the new "Journal of WHS Regulation" is dedicated to the WHS of workers undertaking work allocated through digital platforms. The five papers presented within covers three themes (Johnstone, Bluff & Quinlan, 2023):

1. Understanding how the platform environment modulates the traditional risks and those risks introduced by algorithmic management.

- 2. Whether WHS regulatory systems can regulate the risks arising from the nature of platform work.
- 3. Discussing how platform work should be regulated, including the legal framework, the diversity of gig-work, and the ability of the law to facilitate worker representation, consultation, and participation in WHS.

One paper on the regulation of gig work in Australia recommended that regulators should increase their focus on platform businesses' algorithms and systems, using strategic enforcement and general deterrence, in addition to the work already undertaken in relation to promoting safe worker behaviours and the provision of equipment. The authors also argue for closer integration of WHS laws with those for workers' compensation and industrial relations to ensure the fundamental drivers of risk (e.g., working hours, payment, monitoring, and representation) receive more attention (Johnstone, Bluff & Quinlan, 2023).

Macquarie University recently received funding from the Australian Research Council to explore the risks to safety and wellbeing to migrant cohorts who undertake food and parcel delivery. While the industry is now a structural feature of the Australian labour market, little is known about the social consequences of this development for the workforce, especially for temporary and long-term migrant workers. The project aims to investigate intersecting impact of age, gender, class, and ethnicity and particularly migration status (MQ, 2023).

Pseudo-sole traders advertising via gig platforms might be a rising issue

Our consultation with Australian WHS inspectors revealed concerns from the inspectorate regarding the gig economy. In particular, sole traders advertising via online platforms (e.g., HiPages, Facebook Marketplace, Airtasker) was pointed out as a key emerging issue for WHS regulators for two reasons: 1. these sole traders are often unlicensed or not competent to perform the contracted work, and 2. these sole traders are often difficult to properly identify due to the limited details provided on the digital platforms.

Flexible working

Hybrid working is here to stay

As organisations returned to the office after the pandemic, the hybrid model served as a transition phase from fully remote working. However, the model seems to have stuck in many organisations, proving to provide flexibility while allowing for face-to-face activities, such as collaborating, mentoring and socialising. Experts predict that hybrid working will be more formalised in 2023 with days in the office being more organised events, coordinated ahead of time to ensure value for everyone (LinkedIn News Australia, 2023).

4-day work week trials underway in Australia and more recommended

In the continued push for flexible working, the debate around the 4-day work week continues. Evidence suggests that flexible working increases productivity and ability to focus, and while location is important, the time when work is performed can be even more imperative (Axios, 2022). Recent trials of a 4-day work week including more than a dozen Australian businesses are currently underway, using the 100:80:100 model (workers receive 100 percent of their pay while working 80 percent of their normal hours with 100 percent productivity maintained; 4dayweek.com, 2022). The trial is led by not-for-profit 4 Day Week Global and is in partnership with researchers from the Auckland University of Technology, the University of Queensland, the University of Sydney, and Boston College. Results from the 4-day work week trial in Australia expected in April 2023 (ABC News, 2023c)

The Senate Select Committee on Work and Care also recently reviewed the evidence of the 4-day work week model and recommended in their final report that the Australian Government undertake a national trial in collaboration with a university across diverse sectors and geographical locations (Parliament of Australia, 2023c).

"The committee heard substantial evidence about the four-day week. It is many decades since Australia made general reductions in the length of the working week and we are far from our mid-nineteenth century leadership in international rankings for reductions in the length of the working week. It is time for a review of standard hours, the frequency with which they are over-run without recompense, and for more widespread experimentation with shorter working weeks" (Parliament of Australia, 2023c, p xxix)

Flexible working arrangements challenge communication and collaboration

Continued flexible working is creating challenges for communication and collaboration as it must stretch across time and space. Asynchronous communication methods, such as written text and pre-recorded videos, take precedence over synchronous methods, meaning less conversations happen in real-time. This poses challenges for effective WHS management, which relies on worker consultation and engagement. Moreover, remote working limits the opportunities for informal connection (i.e., outside of meetings and presentations) further increasing static and siloed networks and isolation, hampering not only innovation but worker mental health (Asana, 2022).

Middle managers under increasing pressure during flexible working

With increased remote working, middle managers experience increased pressure to fill the communication gap between the workers and the leadership of the organisation. Moreover, while organisations may have invested heavily in ensuring workers feel supported through

hybrid working, less has been put in place to support managers, who are often left isolated from their managerial peers (Asana, 2022; Gallup, 2022b).

The future of the office building is as a place to connect and collaborate but also to provide private spaces for concentration

Following the end of the COVID-19 lockdowns, the use of office space has considerably changed. Where some buildings are buzzing with activity, others stand eerily quiet. CBD occupancy rates reported in November 2022 were 59 and 57 % in Sydney and Melbourne, respectively. Comparative numbers in Adelaide and Perth were 74 and 80 %. PwC suggests that this reflects the cultural shift and learnt behaviour of shifting to less office-based working brought on by the lockdowns (PwC 2023).

With the role of office buildings evolving, there has been a shift to increased quality using appealing and versatile facilities as a means to entice workers to connect, co-locate, socialise and collaborate. Consequently, there will be a sustained demand for new quality buildings and redevelopment of assets that have been left dormant (PwC 2023). The shift of the workplace as a space for connection and collaboration also demonstrates a shift towards building psychological safety, driving innovation, and retaining talent (PwC 2023). However, open office spaces have been shown amplify stress and facilitate the spread of communicable diseases as well as reduce productivity, communication and collaboration. Experts therefore recommend that workspaces be redesigned to also consider catering for more private workspaces with less noise and visual interference (Asana, 2022).

Multifunction real estate soften the lines between residential, retail, industrial and office spaces, introducing new risks

In an age where the lines between working, living and playing are fading, real estate is also moving into a space of multifunction. This entails combining and blurring the boundaries between residential, office, industrial and retail spaces, all in the same building or complex. New risks may thus be introduced to workers who must now navigate and interact with industries they would normally not engage with (World Economic Forum, 2023b).

SafeWork SA released guideline to identify and manage hidden hazards in office work environments

SafeWork SA released advice on managing office hazards that can lead to chronic issues, such as prolonged sitting, information overload and overwhelm, work-related stress and burnout, as well as unhealthy eating (SafeWork SA, 2023c).

Workers, inspectors, and WHS professionals report safety and wellbeing concerns with flexible working arrangements

Respondents of the Australian WHS Survey frequently raised concerns related to hybrid, flexible working and working from home. The most common were with respect to the psychosocial impacts of the isolated environment and limited contact with other staff.

"Hybrid working poses new WHS challenges, which have not necessarily been considered nor are being managed in totality from a WHS lens." (Australian WHS Survey - respondent 7)

Further, respondents highlighted the potential and increasing WHS risks of the home setting, given these settings have limited oversight from WHS professionals and limited controls in place. Others indicated that, due to the ability to work from home, they were working longer hours, experiencing increased demands from their superiors, or finding it hard to 'switch off' from work outside of work hours.

The respondents commonly reported that they often had not received adequate training for new ways of working or when new technologies or systems are introduced. They also highlighted that adequate consideration for WHS and change management processes when implementing new ways of working were often overlooked by their leaders.

The WHS Inspectors we consulted with also raised flexible working as an emerging risk for WHS. The risks of working from home were identified as:

- Isolation and disconnection
- Decreased supervision
- Working outside of core hours
- Risk of WHS incidents within the home

The inspectors also reported that there is a "lot of grey" in the space of regulating WHS where flexible working arrangements are in place.

Lots of working from home so entering people's 'workplace' is now entering a person's home - lots of grey in this space. This has also introduced new risks such as psychosocial isolation, provision of appropriate equipment to work safely at home, expectations around availability after hours. (Inspector 19)

Consulted WHS professionals noted the significant change that has occurred in working from home, which includes the number of workers and the type of worker who is working flexibly. Mental health and WHS training concerns were raised, with one respondent noting that more can be done to ensure the WHS of workers.

Currently working from home (WFH) and flexible working arrangements is the trend but more can be done in ensuring the health and safety risks of employees i.e. visit

Technology

Artificial Intelligence automating white-collar work

Recent breakthroughs in machine learning mean that increasingly complex cognitive tasks can and are likely to be automated. This will have significant impact on workers in areas that traditionally have not been expected to be disruptively affected by developments in AI. Experts estimate that between 15 to 70 % of work done in front of a computer can now be automated (World Economic Forum, 2023c). This is not limited to tasks such as invoicing, mortgage applications or diagnosing radiology imagery, but is moving into spaces such as architecture, advertising and entertainment. Generative technologies, such as ChatGPT, text-to-image models and text-to-video broke ground surprisingly quickly and will have lasting impact on creative industries (World Economic Forum, 2023d). There are few professions where AI could not replace part of the job description. Questions remain as to what roles and how high up the hierarchy AI will rise and how these roles will be restructured and redesigned to ensure WHS.

Wearable technologies introduce psychosocial risks

Wearable technologies use cameras, sensors or other devices to collect, transmit, store and process data related to the work environment and/or the activities of the worker. This data can be used to assist or even (partially) automate managerial decision making. A report from EU-OSHA, the Joint Research Centre of the European Commission and Eurofound has found that organisations using data analytics (to improve production and monitor employee performance) tend to perform better, provide higher levels of training, and are characterised by performance-related pay, greater job complexity and worker autonomy (Urzì Brancati et al., 2022). In addition, these establishments are more likely to engage in the design and development of new products or services. However, the use of data analytics is also associated with somewhat lower worker wellbeing, especially if used for employee monitoring. The same report found that 6 % of European enterprises use wearable technologies and analysis of where such devices is used for worker monitoring (determining content or pace of work or measuring performance), there was a higher prevalence of reported psychosocial risks, in particular time pressure and irregular working hours (Urzì Brancati et al., 2022).

A similar review on smart digital monitoring systems for WHS has found that using data analytics can successfully identify, assess, prevent and/or minimise harm, and promote WHS

(EUOSHA, 2023). It can also have positive psychosocial impact when linked to improved WHS culture, is tailored to workers' needs, can reduce stress and enhance job meaningfulness. Consultation with workers about design, use and information management is important along with enhancing human accountability in the use and interpretation of data connected by the system. Issues with data-driven management include the potential for algorithms to get it wrong, worrying users unnecessarily (false positives), generating a false sense of security (false negatives), and introducing bias (EUOSHA, 2023). Similarly, the opaqueness of how algorithms make decisions, lack of input into decisions, increased sense of surveillance and lack of privacy can contribute to worker psychosocial harm. Allowing workers more time "off grid" or to have "off-grid days" has been proposed as a useful compromise (LinkedIn News Australia, 2022).

Research on falls from heights using the Internet of Things

A study has developed a fall from heights prevention system by combining data from environmental sensors using the Internet of Things. Using fuzzy logic, 11 rules were developed, and the system tested in four different scenarios. In each scenario, at least one rule fired and demonstrates that the appropriate use of a harness in dangerous zones is a key aspect to preventing falls. Through continuous wireless monitoring of workers, the system responds to the dynamic conditions of the construction site and updates the risk perception of workers and managers based on real data (Rey-Merchán et al., 2022).

World-first guidelines for working safety with collaborative robots

The NSW Centre for Work Health and Safety has published guidelines for safe work with collaborative robots (cobots). Developed in partnership with the Centre for Advanced Manufacturing, University of Technology Sydney, Robotics Institute, Centre for Inclusive Design, and Kairos Now, these world-first guidelines will fill the gap in the current WHS framework around how workplaces can safely engage with cobots (NSCA Foundation, 2023).

Workers and inspectors report new technologies being implemented without adequate WHS consideration, training or change management

Many respondents of the Australian WHS Survey acknowledged there was a high rate of change and introduction of new systems, technologies, and ways of working within their organisation, e.g., WHS reporting systems, administrative systems, project management and resource planning systems.

"The rate and pace of change from a tech standpoint at our organisation is high... WHS are rarely involved in early... Rather, WHS are brought in to support the fall out of poor change management. (Worker respondent 8)

Respondents commonly highlighted that new technologies and systems introduced in their organisation were often not fit for purpose and/or were implemented poorly and with limited WHS consideration, including poor change management, risk assessment or inadequate training. Respondents called for greater consultation with staff, realistic and adequate planning and safety stewardship to ensure these technologies could be successfully adopted.

The WHS Inspectors indicated that technology adoption by PCBUs was slow. However, when taken on, it was often adopted without consideration of associated safety regulations.

New technologies being adopted for fuel sources without the safety regulations to go with it i.e. safe storage and use of electric batteries and hydrogen. (Inspector 20) It was also acknowledged that the increased use of technology is increasing reliance on inbuilt safety features. One inspector observed that the implementation of QR codes is encouraging "a tick and flick culture in high-risk industries".

The inspectors reported that WHS regulators have focused on technology being the central location of the provision of information and updates, however, not all PCBUs and workers have the expertise to interrogate websites to get the relevant information. It was also noted that some may have connectivity issues, particularly those in remote locations.

Remains large group/s of duty holders, across all industries and sizes of business, who do not have the expertise with the technology along with other issues such as lack of connectivity, older ages or the website is confusing or difficult to use and therefore there are still large group/s of duty holders who are unaware of how to or unable to update their knowledge base leading to a lack of understanding of their requirements for compliance with legislation. (Inspector 21)

Similarly, some inspectors noted the complexities for the regulator in relation to the increasing use of digital SWMS where it can be difficult for an inspector to obtain a 'real copy' of the SWMS following an incident. One positive note around technology was the use of MS Teams and other communication methods, however, it was stated that its use can cause some lines to be crossed regarding out-of-hours contact and expectations from managers within private industries.

Workers report that new technologies are creating inefficiencies and/or increasing risk

By extension, respondents of the Australian WHS Survey indicated that the pace of introduction of technology into their workplace, coupled with limited training and change management processes, were leading to increased burden and inefficiencies. A common example highlighted by respondents were situations where newly implemented systems were

not fit for purpose or had failed and there was limited expertise within their organisation to facilitate repair.

Further, respondents highlighted new technologies were creating risks. Some of these were psychosocial – particularly for desktop roles with the introduction of activity monitoring software, leading to a perceived need to constantly be "online". Others highlighted risks posed by technologies introduced on-site or in other environments, such as the use of mobile phones and headphones creating distractions and WHS issues.

Workers and inspectors report that new technology has the potential to prevent harm

There were a range of technologies respondents of the Australian WHS Survey identified being implemented in their workplace that had improved WHS outcomes, including:

- Digital Solutions / Real-Time Reporting (n=11): The most common technology being
 implemented in workplaces were digital solutions to assist workers report on and
 monitor WHS activity in the workplace efficiently and in real-time. This includes
 complaint management and incident reporting, tracking and response systems. These
 technologies were particularly highlighted in the construction industry.
- Wearables / Real-time monitoring (n=8): Respondents noted the use of wearable
 technology and real-time monitoring devices being used to monitor the safety of
 workers in a range of settings, including those that work in remote environment, and to
 monitor the environment (e.g., monitor dust exposure, air quality and temperature).
- Mobile or Desktop Applications (n=6): The use of mobile applications was also highlighted, particularly in reporting WHS issues, psychosocial hazards or during site visits and inspections. For office-based workers, some respondents highlighted new desktop activity-tracking technology, which has pop-ups to remind workers to take screen breaks and if their daily usage exceeds the recommended levels.
- Automation of repetitive or manual processes (n=4): Some respondents noted they have implemented automated machinery or systems to minimise human-plant contact and manual handling.

The WHS inspectors identified digital solutions, mobile/desktop applications and automation initiatives as facilitating compliance. These include WHS reporting systems such as Hammertech, online electronic EEHA dossier, maintenance management tools, online fire system maintenance management tools, and QR codes used for inductions and SWMS on notice boards. Advantages of video conferencing tools such as MS Teams was noted by one

inspector, particularly in conducting Records of Interviews (can be recorded) and to get duty holders to provide an inspector a virtual tour of a site.

Since COVID, I have used MS Teams regularly to conduct Record of Interviews, and where possible, following the legislation S.155 and S.171 interviews. This has transformed my work and enabled me to complete cases quicker. I am now in an operational role where I triage new cases come in and manage resources. I am now using MS Teams to get duty holders to show me remotely around a site, so I can make resource decision. This interaction is openly recorded enabling a snapshot of the site. (Inspector 22)

Apps that track employee welfare regarding exposure to psychological risks were noted and one inspector reported experimenting with Scaniverse – an app that enables users to take a 3D scan of a scene or an object and then enables the viewer to rotate around the object. The inspectors also noted robotics and drones being used for workplace inspections, such as of assets and infrastructure in remote areas, and in conducting tasks which eliminate workers from entering hazardous areas.

The use of online tools and apps for inspection and pre-starts online were also mentioned in our consultation with WHS professionals as a means to prevent and reduce harm even in industries traditionally reluctant towards the use of technology.

The use of phone Apps to record information has had an impact even industries that have been reluctant to change, such as construction. There has always been a percentage of the construction workforce with lower literacy skills, but even these workers are now using Apps to record information, for example, pre-starts of plant and equipment. The impact is that information that would not necessarily have been recorded, is now captured in real time, and can be acted upon (WHS professional 4)

Spotlight: Electric vehicles

The number of zero emission vehicles in Australia is on the rise. Consumer demand is being driven by the desire to help address climate change and reduce noise pollution in high density areas (Department of Infrastructure, 2023). Our Google Trends analysis over the last five years shows a higher search interest for electric vehicles (EVs) in Australia compared to global averages, notably in recent years. Similar analysis of social posts on Reddit over the past five years shows a growth in number of posts since 2019, with a global spike in 2021 where numbers increased seven-fold. A significant focus of these posts relates to the sustainable and ethical sourcing of materials used in EVs along with safety concerns associated to the exposure of workers to these materials, particularly those accompanying the battery technology (e.g., nickel, lithium, and cobalt) in the case of battery electrolyte leakage. Additional concerns include increased frequency of faults in batteries leading to fires and exposure of workers to toxic fumes (ABC News, 2022). Moreover, EVs introduce electrical

hazards to workers less experienced working with electrical risks, such as first responders and repair technicians. Voltages are much higher than other battery-powered industrial equipment, such as golf carts, forklifts and elevating work platforms. This is particularly the case with heavy EVs, such as freight trucks, mining equipment and buses which may operate at higher voltages than passenger vehicles (SafeWork NSW, nd). The federal government is currently developing new Australian Design Rules to address safety issues of high voltage systems in EVs as well as hydrogen-fuelled cell vehicles (Department of Infrastructure, 2023).

Fire risk from lithium-lon batteries in electric vehicles

Lithium-ion batteries are the most common batteries used in EVs, due to their high energy density and specific energy, compared to competitors (Snyder & Theis, 2022). There have been numerous media reports of fire incidents throughout the world involving lithium-ion batteries, not only in EVs, but also in portable consumer electronics and broad-based energy storage systems (see, e.g., Shine, 2023). The Australian Competition and Consumer Commission (ACCC) is in the process of investigating product safety issues and potential hazard prevention strategies in relation to lithium-ion batteries as one of their product safety priority areas for 2022-23 (ACCC, 2022). The smoke and fumes from lithium battery fires are more toxic than gases from conventional vehicle fires; the fires are more difficult to extinguish; and the batteries can later reignite - sometimes days or weeks later (Snyder & Theis, 2022).

There is a very active field of research relating to the mitigation of lithium-ion battery fire risk. Some recent research focuses on identifying and ranking the risk factors that lead to fires (Chen et al., 2022; Chow & Chow, 2022). There is also research on improving battery management systems. Importantly, there is ongoing research on potential safer alternatives to lithium-ion batteries. In their recent perspective paper, Liu et al. (2022) identify solid-state batteries and alternative-ion batteries as the most promising contenders to replace lithium-ion batteries in the future. The two most promising alternative-ion batteries are sodium-ion and zinc-ion batteries, each of which pose lower fire risks.

Best practice for extinguishing lithium-ion battery fires remains under debate

Research is underway to determine the best way for safely extinguishing fires and decontaminating firefighting clothing (Szmytke et al., 2022). While best practice reports exist for emergency responses to EV lithium-ion battery fires, providing recommendations on PPE and methods for extinguishing the fires (see, e.g., Park et al., 2013), what the best method consists of is still under debate (Snyder & Theis, 2022; Linja-aho, 2022). Most sources recommend spraying the fire with enormous amounts of water. A recent contribution to the debate from Quant et al. (2023) showed that toxicity levels of the runoff water from fighting a

lithium-ion battery fire using this method were high. This suggests that it is worth continuing to investigate other solutions. Other methods that have been proposed include immersing the EV in a container of water or puncturing the battery pack with an insulating extinguishing lance (Snyder & Theis, 2022).

Training needed for first responders to safely handle electrical vehicle fires

Recent evidence suggest that emergency responders have not received enough specialized training in dealing with EV fires. Most EV manufacturers provide guides to assist first responders in safely handling emergency situations. The US National Fire Protection Association provides training programs on dealing with EV fires (NFPA, n.d.), and in June 2022 General Motors announced an expansion of its training program focusing on rescues involving EV crashes (General Motors, n.d.).

In spite of these efforts, recent work by Liu et al. (2023) suggests that there is still a lack of training among emergency responders in the US regarding EV. In a national survey of first-responders, Liu et al. found that 40 % of respondents had not received any training regarding EVs in emergency situations. Paramedics and EMS were most likely not to have received any EV-related safety training, followed by law enforcement and Department of transport or public works. More than half (57 %) of the participants from law enforcement said they did not know any fire tactics, while responders from towing and recovery and paramedics also had little knowledge of fire tactics. Respondents also explicitly acknowledged the need for more specialized training on EV emergency response, as well as standard EV designs for assisting emergency responses.

Electric hazards for repair technicians of electric vehicles

EVs pose new risks for automotive repair technicians. Electrical hazards did not pose a great risk to automotive repair technicians in the past, because traditional car and truck batteries are very low voltage. EVs involve much higher voltages. The risks in EV repair come mostly from the EV's high voltage lithium-ion battery, and include electric shock risk, arc flash risk, fire, and chemical risk. Risks can also arise due to the EV's silent operation and due to the weight of the battery (Linja-aho, 2022). Given the projected increase in EV use, managing these risks effectively will require more training for EV repair technicians. The Motor Traders' Association of NSW has recently called for government support for the service and repair industry to prepare to meet the NSW Government's 2030 EV targets (Stopford, 2022). The industry association says there are 49,000 auto workers in NSW who require extra training in safely servicing and repairing EVs.

Managing the risks in EV repair will also benefit from continued development of national and international standards for the repair of EVs and changes to regulation to reflect vehicle technicians' new ways of working. In recent research on electrical risks in EV repair, Linja-aho (2022) notes that there are relatively few standards worldwide that focus on EV work safety. Australia provides an exception, with Standards Australia recently revising its AS5732:2022 standard designed to improve safety and efficiency for technicians maintaining Australia's EV fleet (Standards Australia, n.d.). Linja-aho also notes the lack of EV work safety legislation throughout the world, citing Finland as an exception, where the electrification of vehicles is taken into account in both electrical safety law and electrical work safety standard.

Inspectors report that legislation in relation to lithium batteries is outdated

The respondents to the WHS Inspectors survey reported that the legislation is outdated and does not keep up with the developing technology. It was identified that new innovations in the lithium-ion battery space requires the legislation to be updated as there is no requirement for the notification of sites where lithium batteries are stored.

Priority industries

Construction

Crowdsourcing solutions to improve fit of PPE to diverse user groups

The National Institute for Occupational Safety and Health (NIOSH) in the US recently used crowdsourcing challenges to address the PPE needs of diverse user groups. NIOSH's Protective Clothing Challenge in September 2022 had 35 submissions that considered how to address PPE factors such as body size, gender, race or religious or cultural practices. A total of \$55,000 was distributed to five teams. A similar challenge, the Respirator Fit Evaluation Challenge, aims to crowdsource novel technologies to address the fit of filtering respirators and submissions will close in May 2023 (CDC, 2023).

The United Kingdom is targeting young workers and high-rise builders in new campaigns

The Health and Safety Executive (HSE) has launched a campaign "Asbestos and You", which targets younger workers in trades who started their careers after the use of asbestos was banned in 1999. The aim is to reiterate the risks posed by asbestos and the long lead-in time for symptoms to develop, which can make younger workers complacent if the risk is perceived as an issue that only affects older workers (HSE, 2023a).

The HSE has also advised of a new Building Safety Regulator to address unsafe building practices. Those responsible for the safety of high-rise residential buildings will have six months from April 2023 to register with the regulator (HSE, 2023b).

Singapore's new disqualification framework and demerit system for construction contractors

The Ministry of Manpower has introduced a new framework of disqualification criteria and demerit points for contractors with poor WHS performance in the construction sector (MOM, 2022b). The framework includes accumulation of demerit points for WHS breaches, with more severe breaches generating more points. At certain levels of points, organisations are disqualified from participating in public tenders for a specified period of time. Moreover, the demerit points also bar companies from hiring foreign labour for set periods of time.

Lack of supervision for apprentices

Consulted WHS professionals expressed concerns related to the construction industry employing apprentices as a form of cheap labour and that there is an overall lack of supervision provided for these apprentices, leading to increased risks on-site. They also noted concerns around some companies still unsafely installing roof-based products in the domestic

market, with principal contractors not always verifying that sub-contractors are appropriately onboarded in a way that demonstrates safety compliance.

Australian WHS Survey data (Jan 2023)

The Australian WHS Survey conducted in Jan 2023, 115 respondents indicated they work in construction.

Top 3 daily exposures to physical hazards



Repetitive movements with hands / wrists for 3+ hours

50% selected



Standing for over 2 hours straight

38% selected



Working in a bent, twisted, or awkward posture

20% selected



Top 3 enablers of good WHS practices

62.6% Communication and consultation with all workers

57.4% Risk assessment and active management

56.5% Strong leadership and commitment



Top 3 barriers to good WHS practices

48.7% Time constraints and lack of resource

40.9% Cost implications

35.7% Deprioritisation due to more important goals

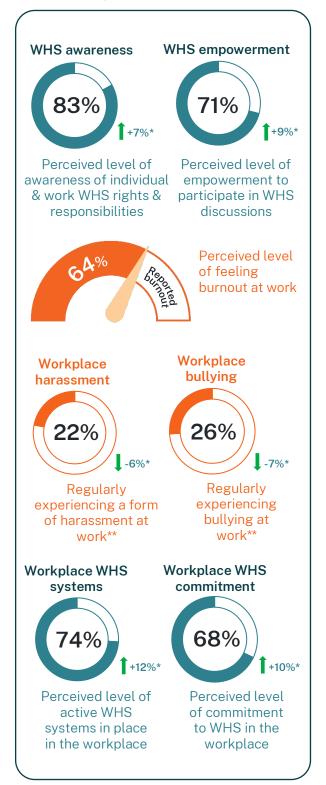


Top 3 drivers of good WHS practices

44.3% If WHS was more valued by workers

36.5% Financially rewarding

33% If WHS was more valued by customers and investors



^{*} Percentage comparison to all survey respondents, 1017 total

^{** &#}x27;Regularly' indicates at least monthly

Agriculture

United Kingdom aims to reduce vehicle fatalities on farms

The HSE has launched a farm vehicle safety campaign and a website with advice on using vehicles safely on farms (HSE, 2023c). Vehicle accidents have accounted for 30 % of deaths on farms in the UK over the past five years and agriculture has the highest number of work-related fatalities. The campaign focuses on three integrated components of safety: safe farms, safe vehicles and safe drivers.

Improvements made in quad bike safety

A review by the ACCC in conjunction with State and Territory WHS agencies explored progress made towards compliance with the national safety standard for quad bikes that was introduced in October 2021. Monitoring and better regulation has reduced deaths due to quad bikes and improved compliance of newly manufactured quad bikes to 94 %. Minor non-compliance resulted in a warning to manufacturers and dealers, whilst more serious non-compliance proceeded to an investigation (AIHS, 2023).

Side-by-side buggies have increased in use as some quad bike manufacturers have exited the market due to the new safety regulations. However, five recent fires involving buggies on farms during high-fire danger season have prompted the NSW Fire Service and farming industry bodies to call for a reassessment of the design of buggies (ABC News, 2023d).

Innovations in shearing reduce injuries

A WA wool producer installed an automated shearing system in 2023, which channels sheep directly to the shearer and improves productivity by 10 %. The system reduces the safety hazards posed by the catch-and-drag method to create a safer workplace. The catch-and-drag method is responsible for 75 % of all injuries in the shearing industry (ABC News, 2023e).

Manufacturing

National Reconstruction Fund to strengthen manufacturing

In March 2023, the National Reconstruction Fund passed the Australian Senate, paving the way for the Fund to pass into law (The Hon Husic MP, 2023). The Fund will invest in strengthening manufacturing capabilities in Australia through loans, guarantees and equity. A submission by Ai Group to the proposed Fund highlighted the need for increased availability of skilled workforce and flagged the possibility of new risks emerging from scaled up new ways of working (Ai Group, 2023b).

AUKUS submarine agreement will increase Australian employment and skills

In March 2023, the AUKUS submarine agreement was announced. The agreement will see Australia acquire nuclear-powered submarines to strengthen national security and regional stability as well as provide investments in defence, skills, jobs and infrastructure. The agreement will see an increase in workers, specifically engineers and supporting staff, entering new lines of work (Prime Minister of Australia, 2023).

Synthetic diacetyl in food manufacturing linked to lung disease

The HSE has recently advised of potential risks of lung disease from exposure to synthetic diacetyl, particularly through coffee bean and flavour manufacturing. Businesses are urged to undertake risk assessment of volatile diacetyl as well as identification of safer alternatives (HSE, 2023d).

Survey finds workers will join or stay with an employer who prioritises physical safety

A survey of over 500 workers in warehousing, manufacturing and distribution in the US found that importance is placed by the workforce on their employer prioritising physical safety in the workplace. Workers are considered more likely to join or stay with an employer who prioritises physical safety. A majority of respondents reported seeing workplace risks more than weekly and suggested that a quicker response and resolution to these risks would improve safety. Others suggested improvements could include increased real-time communication with teams and information on PPE requirements (PRNewswire, 2023).



Australian WHS Survey data (Jan 2023)

The Australian WHS Survey conducted in Jan 2023, 83 respondents work in manufacturing.

Top 3 daily exposures to physical hazards



Repetitive movements with hands / wrists for 3+ hours

39% selected



Standing for over 2 hours straight

35% selected



Working in high noise environments, have to raise voice

18% selected



Top 3 enablers of good WHS practices

45.8% Strong leadership and commitment

44.6% Adequate resources including people and equipment

43.4% Communication and consultation with all workers



Top 3 barriers to good WHS practices

45.8% Time constraints and lack of resource

39.8% Cost implications

33.7% Limited knowledge of risks and hazards present in the workplace

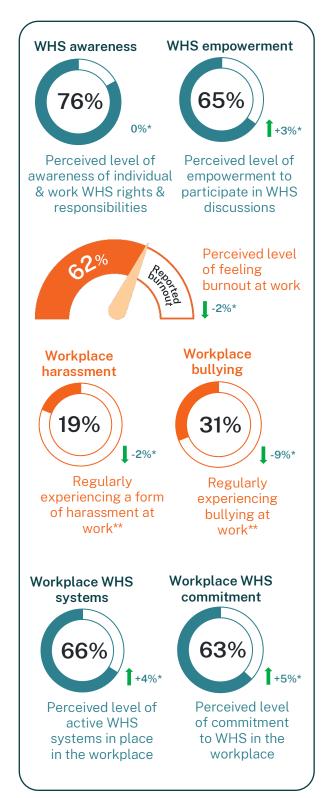


Top 3 drivers of good WHS practices

49.4% If WHS was more valued by workers

42.2% Financially rewarding

37.3% If WHS was more valued by customers and investors



^{*} Percentage comparison to all survey respondents, 1017 total

^{** &#}x27;Regularly' indicates at least monthly

Transport

Zero emission buses are receiving increased government attention

In January 2023, Transport for NSW announced the Zero Emission Buses program, which will transition the state's 8,000+ diesel and natural gas public transport buses to zero emissions technologies (Transport for NSW, 2023). Greater Sydney will be complete by 2035, outer metropolitan areas by 2040 and regional NSW by 2047. Queensland has adopted the same program with different target dates of 2025 for the Southeast QLD area, regional QLD commencing soon after (QLD Government, 2023). In VIC, all new buses will be zero emissions by 2025 (The Hon Andrews, 2022) while the ACT will have fully converted by 2040 (Transport Canberra, 2020).

Passenger drones are rolling out

Approximately 300 designs for electrical vertical take-off and landing drones, big enough to carry passengers, are in development globally at the moment. This innovation has attracted more than \$6 billion in private investment over the last two years. A California-based design has received one of the required three certifications from the US Federal Aviation Administration for commercial operations, while France is testing air taxis for possible use in the 2024 Paris Olympics. The drones might also be adapted for use in medical transport, tourism and sport (LinkedIn News Australia, 2022).

Healthcare and Social Assistance

Workforce shortages and industrial action persist

Those in Healthcare and Social Assistance holding multiple jobs (which can be indicative of gig work) rose 1.9 % in the quarter up to June 2022 and accounts for 7.5 % of all workers in the industry (ABS, 2022b).

In 2022, NSW nurses and midwives went on strike four times over pay and conditions as well as critical staffing shortages. One-fifth of Australia's registered nurses expressed a plan to leave their current role in the next 12 months (McKinsey, 2022). The global picture is much the same. Shortages of doctors, nurses, carers and other healthcare staff is expected to continue and worsen in 2023 (LinkedIn News Australia, 2022).

Healthcare services are expected to focus on ways to work together to address this shortage by sharing the limited staffing resources and by embracing new technology. The movement into virtual healthcare and remote monitoring that began in response to COVID-19 will continue to grow. To facilitate this growth, there is an expected correlational growth in technology to aid digital and virtual healthcare as well as an anticipatory need for training the health workforce of the future (LinkedIn News Australia, 2022).

Training in mental health is the focus of new NSW Government investment

In October 2022, the NSW Government launched a \$120,000 investment initiative in mental health training. Scholarships of \$3000 can be used by healthcare staff towards a Certificate IV in Mental Health. Whilst the aim is for staff to use these skills in the community, this will also have an impact on mental health awareness, self-awareness and understanding amongst healthcare colleagues (NSW Health, 2022).

Data insights - Healthcare and Social Assistance

Australian WHS Survey data (Jan 2023)

The Australian WHS Survey conducted in Jan 2023, 155 respondents work in healthcare and social assistance.

Top 3 daily exposures to physical hazards



Repetitive movements with hands / wrists for 3+ hours

69% selected



Standing for over 2 hours straight

46% selected



Working in a bent, twisted, or awkward posture

39%



Top 3 enablers of good WHS practices

41.9% Training and education

40% Risk assessment and active management

37.4% Communication and consultation with all workers



Top 3 barriers to good WHS practices

61.9% Time constraints and lack of resource

60.6% Deprioritisation due to more important goals

40.6% Cost implications

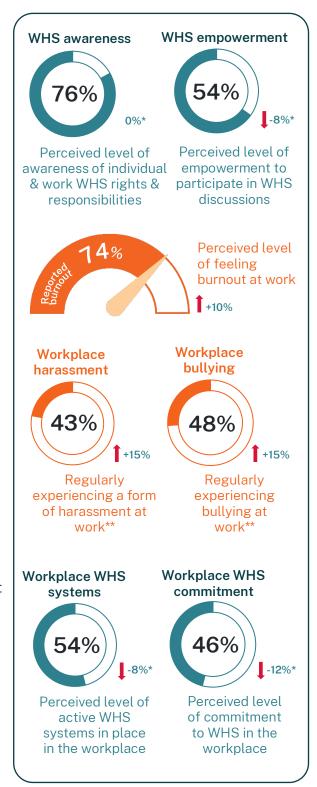


Top 3 drivers of good WHS practices

32.9% If it had more impact on reputation

28.4% Risk of serious injury

27.7% If WHS was more valued by workers



^{*} Percentage comparison to all survey respondents, 1017 total

^{** &#}x27;Regularly' indicates at least monthly

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Appendix

Survey questions for WHS Inspectors

Intent	Question	Response	Response type		
About you					
1. Demographic: geography	In which state or territory do you do most of your work?	 New South Wales Victoria Australian Capital Territory Northern Territory Queensland South Australia Tasmania Western Australia Comcare Outside Australia [closure statement] 	Mandatory Tick all that apply		
2. Demographic: industry	In which industry do you do most of your work?	 Agriculture, Forestry and Fishing Mining Manufacturing Construction Health Care and Social Assistance Transport, Postal, and Warehousing Hazardous chemicals All of the above/generalist Other (text box) 	 Mandatory Tick all that apply 		
3. Demographic: geography	In which geographic area do you do most of your inspections?	RuralRemoteMetropolitan	MandatoryTick all that apply		
4a	Please select all that apply In the past six months, have you come across:	 New gap in the regulator's resources, information, policies, or framework that has made it difficult to secure compliance? New risks, that are driving non-compliance? New ways of working, or types of work, that are driving non-compliance? 	Mandatory		

Intent	Question	Response	Response type
		 New attitudes, behaviours, or practices that are driving non-compliance? New technologies or workplace innovations that are driving non-compliance? New WHS solutions that are facilitating compliance? Other emerging issues None of the above 	
4b	Please provide detail on the gaps that you have come across.	• [free input]	
4c	Please provide detail on the risks that you have come across.	[free input]	
4d	Please provide detail on ways of working, or types of work, that you have come across.	• [free input]	
4e	Please provide detail on the attitudes, behaviours, or practices, that you have come across.	• [free input]	
4f	Please provide detail on the technologies or workplace innovations that you have come across.	• [free input]	
4g	Please provide detail on the WHS solutions that you have come across.	• [free input]	
4h	Please provide detail on the other emerging issues you have come across.	• [free input]	
5. General observations	Is there anything else new you have seen "on the ground" that the WHS regulators should be aware of?	Yes, please explain [free input]No	

Survey questions for WHS professionals

Intent	Question	Response	Response type		
About you					
Please tell us a little bit about yourself and your place of work					
1. Demographic: Experience	How many years of experience do you have in the field of work health and safety?	• 1-100	MandatorySelect oneDrop down menu/Open field number		
2. Demographic: Sector	What of the following best describes your organisation?	 Private Company Public Company Government Non-Government organisation/Not for Profit University Other - please specify [free input] 	MandatorySelect one		
3. Demographic: Geography	In which state or territory do you work? Please select all that apply.	 New South Wales Victoria Australian Capital Territory Northern Territory Queensland South Australia Tasmania Western Australia Outside Australia [closure statement] 	 Mandatory Select all that apply 		
	the following questions based workplaces in the past six-mon	on your experience of work healt ths.	h and safety in		
4a	Please select all that apply In the past six months, have you come across:	 New gaps in existing WHS resources, information, guidance, policies, or framework? New risks, that are driving non-compliance? New ways of working, or types of work, that are driving non-compliance? New attitudes, behaviours, or practices that are driving non-compliance? New technologies or workplace innovations 	MandatoryTick boxes		

Intent	Question	Response	Response type
		that are driving non- compliance? New WHS solutions that are facilitating compliance? New areas of compliance that are lacking regulatory enforcement or that is otherwise poorly regulated? None of the above	
4b	Please provide detail on the gaps that you have come across.	• [free input]	
4c	Please provide detail on the risks that you have come across.	• [free input]	
4d	Please provide detail on ways of working, or types of work, that you have come across.	• [free input]	
4e	Please provide detail on the attitudes, behaviours, or practices, that you have come across.	• [free input]	
4f	Please provide detail on the technologies or workplace innovations that you have come across.	• [free input]	
4g	Please provide detail on the WHS solutions that you have come across.	• [free input]	
5. General observations	Is there anything else new you have seen that the WHS regulator should be aware of?	Yes, please explain [free input] No	Mandatory