**Centre for Work
Health and Safety**

WHS Radar report

Spring Edition 2023

**NSW
GOVERNMENT**

This report has been produced through research by the
Centre for Work Health and Safety.

Executive summary

The Work Health and Safety (WHS) Radar synthesises 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 Spring Edition 2023 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 nearly 1500 Australian workers (Australian WHS Survey Spring Edition 2023), 26 senior WHS professionals (the Australian Institute of Health & Safety's College of Fellows) and 223 WHS inspectors (from Australian regulators associated with the Heads of Workplace Safety Authorities).

The following insights are of particular importance.

Continued undervaluing of safety as the economy and worker shortage worsens.

Our consultations indicated continuing impacts of the worsening economy on the priority placed on safety, regarded as *"nice to have if you can afford it"*, with many examples of WHS shortcuts and cost cutting. Dropping safety tasks and roles, revising what is reasonably practicable, and manipulating risk assessments to justify "doing nothing" were raised as significant concerns. Worker shortage and difficulties in recruitment was also found to contribute to the de-prioritisation of WHS. Jobs and skills Australia reports that the worker shortage is worsening, with 36% of occupations now in national shortage and acute shortages occurring in remote and regional areas. Our consultations revealed that as workers leave jobs to seek better conditions elsewhere, existing workers are required to cover vacant positions or take on unfamiliar tasks. This has increased workload and time pressure. Moreover, as recruitment favours availability over skill, lack of experience and competence is increasing risk at all levels of operation. This concern is supported by the Australian WHS Survey which found a 20% increase in exposure to physical hazards in the last six months. While the survey is not representative of the Australian workforce, it suggests a reduction in physical risk management over this period. To address workforce challenges, the federal government has committed over $440 million over 4 years to establish job and skills councils, including three recent councils for the (1) manufacturing, (2) transport and logistics, (3) mining and automotive

sectors. The councils will assist in workforce planning, training product development, implementation, promotion and monitoring of the training and to provide industry stewardship.

Flexibility, trust, empowerment, and care improves worker satisfaction and mental health.

In response to workforce challenges, several research and industry bodies have explored factors valued by workers when choosing (or choosing to stay with) an employer. While demonstrated commitment to diversity, inclusion, and belonging was found highly valued, flexibility, trust, empowerment, and care were found the most important factors for workers. Evidence showed for instance that workers experiencing empathetic leadership (trust, empowerment, and care) were 40% less likely to intend to leave. In addition, work-life balance and flexible work arrangements appear to have become a baseline expectation for many workers. A study found a disconnect between employer and worker expectations regarding hybrid working. While 47% of employers prefer workers to be in the office two to three days per week, 50% of workers are willing to come in no more than one day per week. Concerns were raised in our diverse consultations around the long-term WHS impacts of hybrid working. Our spotlight deep dive into the topic identified that hybrid working can lead to blurred boundaries between work and personal life, social isolation, and the urge to be constantly connected which can impact mental health. Setting clear expectations, trust and regular contact can help mitigate these impacts.

Fines and penalties increased to support deterrence.

Several inspectors expressed frustrations over the adequacy of current penalties. Most comments related to amounts being too small to have a noticeable financial impact. Recent amendments to the national model WHS laws will address some of these concerns as they are introduced across harmonised jurisdictions as the maximum available fines and jail times have been significantly increased. Penalties under section 31 ("Gross negligence or reckless conduct–Category 1") were more than tripled while prison terms were doubled. All other penalties were increased by 39.03 per cent (before being rounded up or down), matching the increases in penalty amounts across other areas of law since 2011. A record fine of over $2 million was also recently handed down in the District Court of New South Wales, finding the offences deserved the maximum available penalty.

Evidence of improved psychosocial risk management despite confusion.

Our diverse consultations indicated that the implementation of the new Code of Practice for psychosocial hazards has been challenging. Its guidance was critiqued as too generic, while enforcement of the code was described as "*random and inconsistent*" with inspectors and jurisdictions developing different approaches, guidance material and standards. In non-

harmonised jurisdictions, a "wait-and-see" attitude has emerged until best practice and the definition of reasonably practicable has been established. Despite the challenges, the results of our Australian WHS Survey suggest worker exposure to psychosocial hazards has significantly reduced (e.g., job demand, job control, job security and fairness) in the last six months. Lower levels of burnout, a lower exposure to all types of harassment, and a lower proportion of respondents assessed 'at-risk' of psychosocial harm were found compared to the Autumn Edition 2023 six month ago. While the Australian WHS Survey is not representative of the Australian workforce, these results suggest improvements in the risk management of psychosocial hazards.

New resources to reduce the prevalence of harassment.

Under the *Sex Discrimination Act 1984 (Cth),* businesses have a positive duty to eliminate, as far as possible, sexual harassment behaviours from occurring. There has been an increased focus on the prevention of sexual harassment which has led to the development of several new guidelines and resources. In the regulatory space, an "actual or suspected sexual assault incident" has been made a notifiable WHS incident in the ACT. While assaults continue to be investigated by police, the WHS regulator in ACT will monitor WHS polices and collect data to better understand incident rates and trends, and to inform compliance activities. Safe Work Australia is currently reviewing the incident notification provisions in the model WHS laws and is considering similar changes. While this represents an important step towards improved oversight, our consultations showed some level of frustration over the regulator's inability to act beyond the collection of data.

New safety and sustainability standards may improve WHS reporting.

The final date for transition from AZ/NZS 4801 to the new international standard for occupational health and safety management systems (ISO 45001) was 13 July 2023, assisting organisations to better define their context (scope, objectives, and targets for WHS), along with leadership, training, monitoring and reviewing performance and implementing corrective actions. This standard, combined with upcoming changes to international sustainability reporting, are likely to encourage improved WHS management and reporting. From 1 January 2024, sustainability topics – not just climate – need to be reported under a new consistent global framework, focusing on how these topics impact organisational prospects. The reporting will be connected to financial statements and thus require processes and controls to provide relevant information of the same quality and timeframe as financial information.

Reducing exposure to hazardous respirable materials.

While the debate on a ban of engineered stone products containing crystalline silica continues, uncontrolled processing has been made explicitly prohibited in the model WHS Regulation. The amendment calls for at least one of three controlled processing systems to be implemented: wet cutting, on-tool dust extraction, and/or local ventilation system. The exposure limit for welding fumes has also recently been reviewed and subsequently reduced from 5 to 1 mg/m^3, bringing the level in line with the international lowest level. Our spotlight deep dive into the topic of welding fume harms identified controls similar to those for managing inhalation risks of silica dust; monitoring exposure times, real-time air monitoring, modifying enclosures around the worker, and managing ventilation using local exhaust systems to remove fumes and gases from the worker's breathing zone.

Advances in technology can prevent harm while also introduce new risk.

Technological advancement is a key focus for harm prevention. Increased use of robots, drones and other remote-controlled devices can help operators avoid hazardous environments. Similarly, WHS management software is abundant and helps streamline processes such as risk assessment, control verification, incident reporting, and more. When combined with advanced algorithms, predictive models, and Artificial Intelligence (AI), software can analyse patterns, detect harm in real-time, and predict risk into the future. The rise of Generative AI, such as ChatGPT which creates new content based on patterns in data, has been hailed as one of the top emerging technologies of 2023. Our spotlight deep dive into the topic showed that generative AI will impact on a significant number of professions and tasks and raises concerns around job security, privacy, and data security. Concerns were expressed in our diverse consultations around the increased use of this technology to draft emails, investigation reports, safe work method statements, WHS management plans procedures, and training material without adequate quality control, thus contributing to misinformation and WHS risk.

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Introduction

The Work Health and Safety Radar

The 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 in and outside of Australia, and points to potential WHS issues in the changing world of work. It will 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.

The WHS Radar is released biannually to provide regular and actionable insights about WHS in an Australian context. This Spring Edition 2023 is the second edition of the WHS Radar, following the Autumn Edition 2023 published six months ago.

Insights 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 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.

Economy

2023 Intergenerational report: five major forces impacting the future economy.

The Government's Intergenerational Report provides analysis and projections for economic growth in Australia. The key forces shaping the economy over the next 40 years include (Australian Government, 2023a):

- the ageing population;
- expanded use of digital and data technology;
- climate change and the net zero transformation;
- rising demand for care and support services; and
- increased geopolitical risk and fragmentation.

The ageing population is expected to reinforce the services-based economy, while digital technology is likely to generate a higher skilled workforce. The net zero transformation is expected to reduce global demand for some traditional exports while new markets will emerge. The care and support, manufacturing and mining sectors are called out as likely to face profound change (Australian Government, 2023a).

Labour market changes as the worker shortage worsens.

Analysis of the latest Australian Bureau of Statistics labour force data covering the past five years (up until February 2023), shows significant changes in several professions across the country. The industries with largest growth are Health Care and Social Assistance, increasing by over 430,000 workers. The second largest growth was found in Professional, Scientific and Technical services increasing by over 230,000 workers. The industries with largest decrease were Manufacturing losing over 47,000 workers, and Agriculture, Forestry and Fishing losing nearly 27,000 workers (Australian Government, 2023b).

Jobs and Skills Australia recently published its skills priorities list, stating that the worker shortage has continued to worsen over the past three years. 36% of occupations are now in national shortage with acute shortages occurring in regional and remote areas (Elmas, 2023).

Flexibility, trust, empowerment, and care improves worker satisfaction.

With economic uncertainty and job stability being key concerns for job seekers, Randstad's recent "Employer brand survey" identified the following factors as those highest rated among workers when choosing an employer or choosing to remain with an employer; work-life balance, benefits, job security, good training and strong management (Ranstad, 2023). Good work-life balance other non-monetary benefits were essential considerations to workers, particularly as financial pressures prevent salary increases. Employers being visible in the workplace and demonstrating their commitment to diversity, inclusion, and belonging was another significant consideration for workers (Ranstad, 2023).

Similar findings were reported from the third iteration of Ernst and Young's "Belonging Barometer" survey, which canvassed the views of more than 5,000 workers across 5 countries. 63% of respondents, across generations, reported to prioritize Diversity, Equity and Inclusiveness (DE&I) when choosing a company over one that does not. Moreover, workers of organisations that enabled flexibility felt a boosted sense of belonging within the workplace (Noel, 2023).

When also considering the expectations of employers, another Ernst and Young survey (Fealy & Feinsod, 2023) discovered a disconnect in expectations and motivations. 84% of employers believed offering flexibility positively impacted recruitment, but just 63% of workers agreed. The disconnect was particularly true for knowledge workers traditionally based in professional office settings. For these workers, flexibility has become a baseline expectation, with more than a third wanting to be fully remote. While 47% of employers prefer their staff to be in the office two to three days per week, 50% of workers are willing to come in no more than one day per week. The survey showed that the balance of power remains with the workers despite slowing economic growth and more than a third of workers looking to change jobs. There may be little employers can do about this, however workers that experienced empathetic leadership (trust, empowerment, and care) were 40% less likely to intend to leave (Popoola, 2023).

Gen Z is seeking a work life reset and to redefine the meaning of work.

The 2023 Edelman "Trust barometer" canvassed nearly 7,000 respondents across 7 countries and found that employers must rethink what work means to workers. Amidst economic and geopolitical tensions and increased automation, 78% of workers were concerned about job security. While trust in their employer is high, workers are expecting more and are gaining stronger influence. Majority of workers want a "work life reset", revaluating how they spend their time and redefining the meaning of work (Edelman, 2023). Gen Z is demonstrating a

strong influence on all generations in the workplace on how they think about topics such as work-life boundaries, self-advocacy, fair pay, and work identity. Younger workers are demanding more influence at work, pushing for more meaning at work, and serving as change agents across a range of areas including labour union issues, social issues, and organisational issues (Edelman, 2023).

Three federal tripartite councils established to support job and skills development.

The federal government has committed $442 million over 4 years to establish 10 job and skills councils in a bid to deal with workforce challenges. This includes three recent councils established for the (1) manufacturing, (2) transport and logistics, (3) mining and automotive sectors (Coade, 2023). The councils will assist in workforce planning, training product development, implementation, promotion and monitoring of the training and to provide industry stewardship. This includes identifying skills and workforce needs for their sectors, mapping career pathways, developing training products and supporting collaboration between industry and training providers (DEWR, 2023b).

Australian workers, inspectors and professionals report financial pressures is causing further undervaluing of WHS.

The inspector and WHS professionals responding to our survey repeatedly stressed the impacts of the worsening economy and its influence on the priority businesses place on safety. Calling it a "*nice to have if you can afford it*". Examples of increased shortcut taking and cost cutting were common, such as dropping safety tasks and roles. Several respondents reported concerns for low margin and small businesses, citing their already stretched resources. Others highlighted the additional financial burden of recent regulatory changes.

The respondents reported that the financial situation is putting pressure on what businesses deem "reasonably practicable". While cost should be the final consideration, old controls for fatigue are now being criticised as no longer being reasonable.

> *In the past, compliance may have looked like, changing staff ratios or increasing staffing, or having more labour hire arrangements, but suddenly this is not 'reasonably practicable' because its 'so hard to find staff'.*

The respondents to our Australian WHS Survey highlighted similar concerns, highlighting that new leadership is valuing profit over safety. They also reported a sense of increased stress and tension in the workplace, leading to changes in manager's behaviour that encroach on bullying and causing psychological hazards to others.

New management team that prefers to work within a budget rather than spending money fixing issues.

Australian workers, inspectors and professionals report staff and skill shortage has ripple effects on workloads and competence at all levels.

Concern around staff and skill shortages was repeatedly voiced by our inspector and WHS professional respondents. All industries appear affected and there is increased risk resulting from overwork and inexperience.

Work that is impacted by staff shortages seems to be everywhere presently. Businesses are modifying hours or processes in order to get work completed with less staff.

There is a genuine shortage of employees available for the workforce and that has led to businesses cutting corners, operating longer hours to accommodate workloads placing pressures on both duty holders and employees.

Workers leave jobs to seek better conditions elsewhere, requiring existing workers to cover vacant positions or take on unfamiliar tasks. This has increased workloads and time pressures.

I have seen employees taking more risks to 'get over the line' because they are more time pressured and have less resources.

The respondents to our Australian WHS Survey reported increasing workloads, high expectations, lack of resources, lack of role clarity, and/or procedure to reporting WHS issues. Short staffing is becoming the new normal, particularly in regional areas, as workers "*push to get the job done".*

The WHS professional respondents reported growing unease regarding the quality of training provided to those entering the WHS industry, with declining enrolment in WHS programs at universities potentially lowering professional standards. Concerns also revolved around the suitability of WHS educators and a lack of industry input in WHS education and accreditation, potentially leading to insufficient training for students.

Falling student enrolment numbers in OHS programs taught by universities, potentially resulting in dumbing down of the profession and endangering workforces. Regulators should consider enforcing the concept of 'suitably qualified'.

As recruitment moves towards availability over skill, inexperience and lack of competence is affecting all levels of operation. Workers responding to our Australian WHS Survey reported concerns around overseas workers not receiving adequate training.

New staff who are not trained, are recent migrants to Australia who lack a standard level of English, who aren't interested in anything except to do the job quicker than others, to make good impression as to get mates at job too.

Other respondents noted a drop in quality supervision, citing lack of experience leading subcontractors to "*walk all over*" newly recruited site supervisors, causing worse safety outcomes. Similarly, inexperienced subcontractors are winning more work and bringing with them bad habits, shortcuts and immature mentalities. Due to it being an "employee's market", our respondents noted that site managers and supervisors are very careful about how they communicate and discipline non-compliant workers and sub-contractors, as many "*pack up their tools and leave when it gets uncomfortable*".

The respondents reported similar issues for the WHS regulator – high workloads, proportion of vacant positions and lack of material resources.

We're stretched too thin. I've got cases coming out of my ears... We've seen over 100% staff turnover in the last year for our inspectors and investigators... This workload isn't sustainable.

Climate and the environment

Further risk management practices needed to protect outdoor workers from heat.

An investigative study by Fatima et al. (2023) found increased risk of occupational injuries and illness due to heat exposure. The study, focusing on workers in Melbourne, Brisbane, and Sydney, revealed that the risk of heat-related occupational injury was higher for workers engaged in outdoor activities and more prevalent in the outer fringes of the three cities. In contrast, workers in the more crowded inner-city regions were at a higher risk for heat-related illness claims. Fatima et al. (2023) concluded that location-specific preventive measures should be implemented to reduce occupational injury risks associated with hot weather conditions. Another study by Hunt et al. (2023) reinforced this finding, concluding that risk management strategies are necessary to protect outdoor workers from the effects of heat.

Social support can mitigate psychosocial risks related to climate change.

Climate change has psychological impacts on workers, which can lead to increased job tension, higher turnover intentions, and workplace hostility. Moreover, stress related to extreme weather conditions can impede the ability to make essential work-related decisions. Some evidence suggests that social support can work as a strategy to mitigate the effects of climate-change-induced stress on work outcomes (Brooks & Greenberg, 2022).

New resources to support preparedness for extreme climate events.

In May, prior to the European summer heatwaves, EU-OSHA released a new set of guidelines for managing heat stress, drawing on information from Australia, Canada, USA and UK. The guidance sets out the risk assessment process, information on heat-related illnesses and possible controls for managing risk (EU-OSHA, 2023f). As Australia heads into the next El Niño event, several regulators have released similar resources and issued warnings around the risks of working in extreme temperatures (OHSAlert, 2023m). For example, SafeWork NSW has launched a new interactive planning tool, SeasonalSAFE, to help businesses, including those in Sydney's CBD, to prepare for managing risks posed by bushfires and heat during the upcoming summer months. Businesses that complete the SeasonalSAFE plan form are provided with a tailored list of actions for dealing with extreme weather, sun exposure, bushfires or smoke, to incorporate into their mandatory emergency plans. (OHSAlert, 2023l). WorkSafe WA has similarly emphasised the legal requirement for employers to have plans in place and to provide employees with appropriate training to protect everyone in the workplace when a cyclone threatens (DMIRS, 2023a).

Considering the increasing frequency of extreme heat and weather events, one respondent to our WHS inspector survey proposed that a Code of Practice might assist businesses with the management of heat stress in the future.

New international sustainability reporting standards likely to impact WHS reporting.

From 1 Jan 2024, all companies will report on sustainability topics - not just climate - under a new consistent global framework, focusing on how these topics impact their prospects. The reporting will be connected to financial statements and thus require processes and controls to provide relevant information of the same quality and timeframe as financial information (KPMG, 2023). While the information other than climate is not specified, this is an opportunity to further the priority business leaders place on WHS along with improved WHS reporting.

EU-OSHA explores potential WHS risks and benefits of transitioning to a circular economy.

As the EU shifts towards more environmentally sustainable practices, EU-OSHA has undertaken a foresight study into the circular economy and its effects on WHS. Phase 1 of the study included developing four scenarios of possible future impacts on WHS. These ranged from a transformation approach that integrates WHS considerations at all stages, to product development and design to end-of-life recycling, to a world in which policymakers and stakeholders fail to grasp the opportunity to shape developments and in which economic success comes at the expense of both the environment and WHS (EU-OSHA, 2023e). Phase two involved four stakeholder workshops to gain detailed perspectives on micro-scenarios

within each scenario world (EU-OSHA, 2023b). The report is accompanied by policy briefs providing insight for specific sectors (EU-OSHA, 2023c), vulnerable workers (EU-OSHA, 2023d) and key stakeholders (EU-OSHA, 2023a).

WHS regulation

Maximum fines and jail times significantly increased in the model WHS laws.

The national model WHS laws have been amended to significantly increase the maximum available fines and jail times following the *Model Work Health and Safety Legislation Amendment (Offences and Penalties) 2023.* A jurisdictional note provides recommended penalties for industrial manslaughter and the operation of the category-1 offence was clarified to give regulators more confidence to pursue reckless or negligent company officers. Penalties for breaches under section 31 ("Gross negligence or reckless conduct–Category 1") were more than tripled while maximum prison terms were doubled. All other penalties under the Act and Regulations were increased by 39.03 per cent (before being rounded up or down), matching the increases made in penalty amounts across other laws since the introduction of the Model WHS laws in 2011. To ensure future relevance and counter impacts such as inflation, the amounts have been structured such that they can be varied to reflect movements in the national consumer price index on an annual basis (OHSAlert, 2023k). New South Wales has moved quickly and are among the first to implement the increased penalty regime with its *Work Health and Safety Amendment Bill 2023.*

Inspectors report frustrations over on-the-spot fines.

Several inspector respondents to our WHS Inspector survey reported frustrations over the adequacy of current infringement notices (also known as penalty notices or on-the-spot fines). Comments mainly related to most penalties being too small and too easily absorbed by businesses without much financial impact. Others reported the recent adoption of penalty notices in Victoria for some areas of its legislation. One respondent was frustrated that they were able to give a penalty for unlicenced forklift driving but not for driving without a seatbelt. Similarly, the respondent can issue a notice for not having a safe work method statement but not for a person working without fall protection. Another respondent similarly expressed frustration around the inability to issue notices for falls from heights, citing its availability in other jurisdictions.

Safe Work Australia launches new interactive data website.

Safe Work Australia has launched a new data website after 2 years of consultation with key stakeholders. Using interactive PowerBI dashboards, the website provides users with WHS

and workers compensation data and allows them to create their own tables, graphs and charts that can be sorted by industry, occupation, year, mechanism of injury and more (Safe Work Australia, 2023i). A case study published in Safe Work Australia's August quarterly news report detailed how a WHS manager for a food manufacturer used information from the site to help identify hazards, consult with workers, and promote the importance of WHS to the business management team (Safe Work Australia, 2023i).

Navigating the transition from AZ/NZS 4801 to ISO 45001.

The international standard for occupational health and safety management systems, ISO 45001, replaced the Australian/New Zealand Standard (AZ/NZS) 4801 in March 2018. While 4801 was listed as superseded rather than revoked due to several states and territories having legislative and contractual requirements to meet the standard, the final transition date for industry to transition to the new standard was 13 July 2023 (ISOGlobal, 2023). The main differences between the two standards include the organisation's context (define the scope, objectives, and targets for WHS), along with defining leadership, training, monitoring and reviewing performance and implementing corrective actions.

SafeWork NSW to be made separate from broader division.

In the interim report from the independent review of SafeWork NSW, former Supreme Court Justice Robert McDougall KC stated that there are valid reasons SafeWork NSW, like SIRA and iCare, should be "excised" from the Department of Customer Service and "constituted as a body corporate". Since SafeWork NSW's remit includes investigation of the activities of other NSW Government agencies, the report states that it is strongly arguable that structural independence would promote public confidence in those aspects of its functions (Hon. Robert McDougall KC, 2023). While awaiting McDougall's final report, the NSW Government has taken steps to restructure the Better Regulation Division within the Department of Customer Service separating the agencies within its remit, including SafeWork NSW, before the end of the year.

Safe Work Australia proposing amendments to notification duties.

Following its review of the incident notification provisions in the Model WHS Act, Safe Work Australia has released a consultation paper suggesting amendments to capture a broader range of incidents that need to be notified, along with the introduction of periodic reporting. This would address gaps identified during the review, including capturing injuries or illnesses that develop over time and exposure to hazards that pose serious risks to health and safety if repeated and frequent but do not require immediate investigation. Similarly, the proposed

amendments aim to improve capture of psychosocial hazards and psychological injuries and illnesses (Safe Work Australia, 2023f).

Safe Work Australia appoints new CEO.

A new Chief Executive Officer has been appointed to lead Safe Work Australia from November 2023. With a background as Executive Director at SafeWork SA from 2015 to 2017 and leading the National Review of Australia's model WHS laws in 2018, Ms Marie Boland brings significant experience to the role.

New Bill to improve standards in the road transport industry and gig economy.

The Federal Government's *Fair Work Legislation Amendment (Closing Loopholes) Bill 2023* has been introduced to parliament to close loopholes in relation to working conditions. In addition to introducing industrial manslaughter, the Bill introduces provisions for the Commission to improve minimum standards for "employee-like" workers performing digital platform and workers in the road transport industry. Examples include payment terms, deductions, working time, insurance and unfair deactivation/termination (DEWR, 2023a).

Code of Practice for amusement devices.

The Queensland Government has released a Code of Practice for managing health and safety risks associated with amusement devices at a workplace (WHSQ, 2023). The code will take effect on 1 February 2024 and incorporates Safe Work Australia guidance on amusement devices. The development of the code support regulations introduced in 2018 following the deaths of four patrons at the Dreamworld theme park (OHSAlert, 2023b).

Guide on managing naturally occurring radioactive material released for public comment.

The draft Managing naturally occurring radioactive material (NORM) in mining and mineral processing: Guide (NORM-II) has been developed by the Mining and Petroleum Advisory Committee (MAPACT). This draft guide provides mine operators with guidance on the legislative requirement to develop and implement an appropriate radiation management plan to minimise the potential exposure of Western Australian mine workers and members of the public from naturally occurring radionuclides (DMIRS, 2023c).

Inspectors report that managing psychosocial hazards is too confusing.

With all eight harmonised jurisdictions having formally applied or committed to adopting provisions requiring management of psychosocial risks through a risk management process (OHSAlert, 2023j), psychosocial risk was a key topic among our inspector and WHS professional survey respondents. Their concerns related to the generic nature of the guidance

provided to businesses and their observations suggest current advice is of little assistance. Businesses do not seem to understand, or fully understand, how to implement the recent Codes of Practice and tend to implement individual interventions, such as EAP and wellbeing programs, rather than organisational system changes.

Concerns regarding the regulatory approach was also raised, citing compliance and enforcement as *"random and inconsistent"* – inspectors and jurisdictions follow differing approaches, guidance material and standards. Some industries appear more supported than others and different laws apply indifferent jurisdictions, especially when it comes to sexual harassment prevention. The respondents expressed concern around having sufficient regulator resources to meet the increasing demand of psychosocial claims and confusion around what constitutes compliance.

> *Psychosocial hazards may be present but not necessarily meet the criteria for non-compliance.*

> *Industry is really struggling with what is best practice in many areas in particular in the Psycho-social Space where recent Regulation Amendments and Codes of Practice have left many Inspectors let alone businesses scratching their head. No one knows what best practice in this space is.*

The lack of clarity has left some jurisdictions and businesses "waiting-and-seeing" until best practice and the definition of reasonably practicable has been established.

> *There is an attitude of "this doesn't apply now" from duty holders (PCBUs) and they are "waiting for the regs" before they do anything to assess and control psychosocial hazards and risks in their workplace.*

Enforcement highlights (OHSAlert, 2023g; unless otherwise stated):

- The High Court confirmed a major airline took unlawful adverse action against 1,700 workers when it outsourced their jobs during the COVID-19 pandemic.
- The independent statutory body, which administers Victoria's court system, was sentenced in the Melbourne Magistrates' Court for toxic work culture leading to psychosocial harm (WorkSafe Victoria, 2023).
- A Victorian company director was handed a $13,000 costs and charity bill for ignoring and then screaming at and intimidating a WorkSafe investigator attempting to serve a notice.
- SafeWork NSW has committed to introducing industrial manslaughter and has announced a consultation process with the aim of introducing the offence to Parliament in early 2024 (OHSAlert, 2023d).

- A NSW PCBU was handed a record WHS fine of $2,025,000, and a leading employee was fined $101,250, with the District Court finding, in an unprecedented move, that their offences deserved the maximum available penalties (prior to discounts for their guilty pleas).

- The Supreme Court upheld the Northern Territory's record shattering WHS fines of $960,000 and $180,000, imposed on a company and its director in relation to the death of a worker inside the strike radius of mobile plant.

- The High Court quashed a ruling that a Queensland company was vicariously liable for the injury-causing act of an intoxicated employee urinating on a sleeping colleague. The company's lawyers reported that the outcome should halt the "concept creep" in this area of law, limiting vicarious liability "to matters that have a sensible connection with employment".

- The Queensland employer of a WHS risk manager, who was previously prosecuted for failing to finalise a risk assessment for an infectious disease, entered a $950,000 enforceable undertaking to avoid prosecution over the same matter.

- A South Australian company committed more than $1 million to safety rectifications and enforceable undertakings, including a trial of drones to eliminate height risks, after being accused of WHS breaches involving a worker's four-metre fall.

Psychosocial harm

Workers report an increase in exposure to physical risk and a reduction in exposure to psychosocial risk.

The Australian WHS Survey, November 2023 report, canvassing the WHS experiences of nearly 1,500 workers, found a significant increase in exposure to physical hazards in the last six months. The survey showed that 84% of workers are exposed to at least one of the nine hazards listed in the validated OHS Vulnerability measure on daily or weekly basis. This represents an increase of approximately 20% in exposure to physical hazards. On a positive note, the respondents reported reduced exposure to psychosocial hazards (job demand, job control, job security and fairness), lower level of Burnout and lower exposure to all types of harassment. The survey also found a lower proportion of workers 'at risk' of psychosocial harm (those with exposure to 3 or more psychosocial hazards) and reported higher level of awareness and empowerment regarding WHS practice. While the survey is not representative of the Australian workforce, the results suggest some improvement in psychosocial risk management.

Harassment, violence, and aggression

Research identified interventions to combat workplace violence in healthcare.

A scoping review of 11 studies from the past 10 years found three types of interventions that are effective at preventing violence and reducing the negative impacts of violence on health workers: skill training programs, cognitive behavioural therapy and workplace violence programs. The interventions are mainly aimed at increasing worker understanding, resilience and ability to manage incidents of violence through either training, psychological support or broader workplace violence management. Specific topics covered understanding violence, body language, and signs and symptoms of violence as well as techniques on preventing violence, de-escalation and overcoming trauma caused by workplace violence. The workplace violence programs included environmental modification, employee policies, education and training, and provision of psychological services to victims (Yosep et al., 2023).

Cultural sensitivity training and customer code of conduct counters customer aggression.

A residential builder has rolled out a "zero harm" education and training program over six months to prevent violence and aggression from clients experiencing delays and cost issues with their purchases. In an industry where physical harm has always been in focus, the conversation around mental and emotional safety is just starting. The program is an intervention that includes a client code of conduct signed at various stages of the "home building journey". The code of conduct helps set expectations and outline acceptable

behaviours for both parties. Training supports the initiative where people leaders were trained in emotional awareness, mental health first aid and positive psychology, while customer-facing staff received cultural sensitivity and dispute escalation training. The training is expected to prevent conflict and misunderstandings arising from different cultural expectations and to improve display of empathy and understanding (OHSAlert, 2023c).

More training needed to protect retail workers.

Following recent news reports of unprecedented levels of abuse towards retail workers (Bakan, 2023), a recent South Australian campaign targeting the retail industry has found lack of training for workers on how to deal with violence, aggression, and armed robberies attracted the most compliance notices. Verbal abuse from customers is a daily occurrence for many workers, yet few receive training on how to deal with threatening situations, including abusive or violent customers. Safe systems of work to address the risk of violence was the second highest area of noncompliance as many employers lacked controls such as security screens, duress alarms, signage, and CCTV cameras (SafeWork SA, 2023b).

Recent research has developed a tool to measure the extent and type of aggression that workers face in retail and service settings and can thus be used to guide risk control activities (NSCA, 2023). The tool resulted from a series of five studies; a student survey, an expert panel review and three retail worker surveys, and categorise behaviours into 4 factors. These are combinations of proactive or reactive, expressive or inexpressive aggression. Examples are customers throwing an item at a worker (reactive-expressive aggression) or yelling to get a discount (proactive-expressive aggression). Inexpressively aggressive customers may be more subtle or implied. For example, using their height to intimidate (reactive-inexpressive aggression) or posting false '1-star' Google review in attempt to get benefits or discounts (proactive-inexpressive aggression) (Mortimer et al., 2023).

Legal Professional Privilege preventing inspector access to information.

WHS Inspector respondents to our survey reported concerns around their inability to access information relating to NDIS participants involved in occupational violence and aggression incidents. When legal firms conduct investigations of gendered violence incidents the resulting reports are subject to Legal Professional Privilege and thus not available to the regulator.

Sexual harassment

New guidelines and resources for complying with sexual harassment prevention.

Under the *Sex Discrimination Act 1984 (Cth),* businesses have a positive duty to eliminate, as far as possible, sexual harassment behaviours from occurring. The Australian Human Rights Commission's (AHRC) new guidelines for complying with this positive duty includes what the positive duty is, who is responsible, what compliance looks like and how it will be enforced. Specific topics covered include the guiding principles of consultation, gender equality, intersectionality, person-centred and trauma-informed, and standards related to leadership, culture, knowledge, risk management, support, reporting and responding, and evaluation (AHRC, 2023).

SafeWork NSW has similarly launched its "respect at work" website, dedicated to the prevention of sexual harassment. Four resources as well as an information pack has been developed. These include: a guide outlining reporting options for workers, a Regulation Map for businesses on their legal obligations, a fact sheet and a "WHS Approach to Workplace Sexual Harassment" poster (NSW Government, 2023).

New tool to assist management of sexual harassment in the mining industry.

SafetyLine Hub, WorkSafe WA and the Department of Mines, Industry Regulation and Safety have released a new tool for sexual harassment. The tool consists of a self-assessment questionnaire for mining operation workers and designed to provide guidance and support after experiencing sexual harassment on a mine site. The is one of the latest guidance tools released in a wide range of actions to tackle sexual assault and sexual harassment in Western Australian workplaces in response to the Parliamentary inquiry into the fly-in, fly-out (FIFO) mining industry (DMIRS, 2023d).

New report on respect at work in mining suggests change is happening.

The Department of Mines, Industry Regulation and Safety's (DMIRS) Work Safe Group has been running "Roadshows" of workshops, focusing on the psychosocial risks in the mining industry. At the first roadshow in 2010, participants discussed the concept of toughness and needing to be tough to fit in. At the time, there appeared to be little awareness of gender and safety issues. Consequently, the focus was placed on improving awareness, providing guidance and tools, and creating a new narrative and shared language for greater diversity and acceptance. The most recent roadshow explored similar issues and suggested that change is happening. While partial and inconclusive, awareness on the impacts of behaviours on safety and wellbeing has increased, there is a shared language and willingness to discuss

most, if not all, issues and psychosocial hazards affecting the industry, and the preference for hyper-masculinity is diminishing (DMIRS, 2023b). DMIRS also hosted a Mining industry summit on 1 August 2023, focused on driving respect in the industry (Government of Western Australia, 2023).

Now mandatory to report workplace sexual harassment in the ACT.

From the 9 June 2023, "actual or suspected sexual assault incident" was added to the list of notifiable incidents in the ACT. Consequently, employers have a duty to report any actual or suspected incidents of workplace sexual assault to the WHS regulator. While assaults continue to be investigated by police, the WHS regulator examines and provides advice on WHS polices and collect data to better understand incident rates and industry trends. This will inform targeted compliance activities, such as education and resource provision (OHSAlert, 2023n). While this is an important step towards better oversight of sexual harassment management in the workplace, some of our inspector respondents expressed frustration over the regulators inability to act beyond the collection of data.

Sexual harassment increasing among higher education workers.

Sexual harassment in higher education workplaces has jumped more than 52%, according to the results of a new staff survey completed by the National Tertiary Education Union. 29% of the 2000 respondents reported to have experienced sexual harassment, compared to 19% in the survey undertaken in 2018. Higher levels were found for women (38%) than men (14%) and non-binary people (33%), and more than half of the respondents were aware of others being exposed to sexual harassment (compared to 36% in 2018). Most common perpetrators were co-workers, managers and students (41, 34 and 29%, respectively). In open text fields the respondents highlighted workplace culture, sexist and gendered attitudes, and patterns of behaviours allowing sexual harassment to continue unabated (NTEU, 2023).

Workplace bullying

One in two Australian workers have been bullied at work.

A survey by the Australian Workers Union and HeadFirst has found that one in two of more than 1,200 members across multiple industries have experienced bullying, harassment or been exposed to conflict or inappropriate behaviour in the workplace. 60% of respondents were concerned about mental health and stress at work, with 23% being extremely concerned and 31% reporting they had sustained a mental health injury at work in the last 12 months (HeadFirst & AWU, 2023). When asked about psychosocial risk controls, few mentioned options other than employee assistance programs. The findings suggest a lack of training

around mental health support, communication and consultation, as fewer than 10% of respondents said this was provided around WHS issues and workplace decision making. Additionally, a low number of employers provided mechanisms for monitoring stress levels or workload. HeadFirst and AWU recommend focusing on causes of mental health issues, implementing controls with effective communication and consultation, monitoring effectiveness through regular communication, educating HSRs, and targeting known issues such as staffing levels and work life balance (HeadFirst & AWU, 2023).

Professional services firm's culture is conducive to bullying.

Following the tragic death of one of the workers at professional services firm Ernst and Young Oceania in Sydney in 2022, an independent and comprehensive review was undertaken into workplace culture, work practices and psychological health and safety. The review report 15% of workers have experienced bullying, with higher rates among women (17%) than men (13%). 26% of workers felt excluded in the workplace at times. There was a low trust in reporting mechanisms, with many experiencing retributions following formal or informal complaints about inappropriate behaviour (Elizabeth Broderick & Co., 2023). Long working hours were seen to have negative effects on individual wellbeing, team cohesion and retention. Working hours, bullying and how workers treat each other generally were seen as having their origin in the organisation's business model of "profit and delivery over people" (Elizabeth Broderick & Co., 2023).

Mental health

New national wellbeing framework for Australia.

The first national wellbeing framework has been established to track Australia's progress to enhanced wellbeing. The framework, *"Measuring what matters"*, covers five key themes of wellbeing: health, security, sustainability, cohesiveness and prosperity. The themes are supported by 12 dimensions that describe aspects of the wellbeing themes along with 50 indicators. These indicators will be used to monitor and track progress (Australian Government, 2023c). Some particularly notable indicators related to WHS include those related to health: mental health, prevalence of chronic conditions, life expectancy and access to care and support services. Similarly, aspects of safety: feelings of safety, experience of violence, online safety, access to justice and financial security. Other areas such as fiscal, economic and climate resilience (sustainability), work-life-balance, diversity, social and cultural connection, sense of belonging and trust in institutions (cohesiveness) and productivity, innovation, education and skills, employment, job satisfaction and security

(prosperity) also applies, suggesting the framework could be useful for informing future WHS trends and planning.

Australian cohesion index provides insights into national societal wellbeing.

As with the national wellbeing framework, the Australian Cohesion Index provides insights into Australia's societal wellbeing. It encompasses domains such as trust, belonging, economy, and health. The latest report revealed a nuanced mix of progress and challenges. Trust in the government has been declining since 2021 but trust in other people remains high. National pride and belonging are also declining along with community involvement. However, there is growing recognition for multiculturalism and diversity. Financial pressures have been increasing over the past two years, but educational attainment is high and growing - a positive indicator for the future economy. The vast majority of respondents rated their health as good, if not very good or excellent. However, mental health inequalities remain (Scanlon Institute, 2023).

Business responds to rising costs of mental health issues.

AIGroup's 2023 CEO Survey identified that 78% of business operations have been affected by staff mental health issues. This is significant considering the rate is on par with the proportion of business operations negatively affected by supply chain disruptions. 77% of CEOs reported they have a strategy in place to manage staff mental health, with large organisations and those impacted by mental health issues more likely to have a strategy. However, the results showed 65% of small employers also have strategies for mental health. Questions remain as to whether businesses respond to a mental health issue by developing a strategy or if they are more aware of, and supportive of, mental health issues once they have a mental health strategy (McGrath, 2023).

Coronial inquest recommends point system to trigger additional supports for first responders.

Discovering early symptoms of post-traumatic stress disorder is a challenge. A recent Tasmanian coronial inquest into the suicide deaths of four policemen has recommended a points system that would track workers' exposure to traumatic incidents. In such a system, workers are given points when experiencing certain incidents, and when they reach a designated number of points, they are automatically referred for additional psychological and welfare support. The point system would remove the need to self-report and may assist in reducing the stigma of PTSD in first responders. The system should be supported by 6-monthly wellbeing screening (OHSAlert, 2023a)

Prevent burnout by targeting emotional exhaustion and improving workplace design.

A recent study explored whether organisational interventions are effective to prevent or reduce exhaustion, a core dimension of burnout. Combined interventions, employing both

individual and organisation-level approaches, had larger impact than organisation-directed interventions alone. Interventions targeting workload were found to be the most effective in reducing workers' exhaustion, followed by participatory interventions, whereas those targeting work schedule had little effect. Examples of workload interventions are those focusing on increasing the resources available to carry out the work and/or reducing the workload (Bes et al., 2023).

Another study explored how work design impacts mental health in Health Care and Social Assistance workers (Jolly et al., 2023). The study states that work design (tasks, roles, responsibilities, and relationships) should be SMART: Stimulating, generate a sense of Mastery, provide Agency (or Autonomy), be Relational (supportive relationships) and demands should feel Tolerable. A survey conducted as part of the study found only 15% of participants have positive work design, 70% reported "okay" levels, and 15% reported poor levels. This was mainly due to low autonomy, poor relationships and less tolerable work demands. The level of SMART work design correlated with experiences of burnout, with the highest levels (almost 50%) found among those with poor design. Young, permanent full-time and client-facing workers were more likely to demonstrate poor mental health, higher demands and lower agency and relational work design, respectively. SMART resources can be leveraged to protect against job demands to improve mental health and well-being (Jolly et al., 2023).

Tool to help foster psychological safety in the workplace.

The Acceptance and Commitment Therapy (ACT) Matrix is an evidence-based tool designed to better prepare individuals to adapt and respond effectively to changing situations and circumstances. The tool outlines four practical strategies for building psychological safety that can be adapted to the workplace:

1. Encouraging individual employees to notice their internal thoughts, feelings, and sensations.
2. Encouraging workers to consider their choices at work in terms of "moving towards" or "moving away" from *their* values, instead of good and bad, right and wrong, or true and false.
3. Encouraging workers to frame workplace discussions around shared purposes (group goals).
4. Encouraging workers to identify and name psychologically harmful behaviours or practices in the workplace as "away moves", allowing them to bring up sensitive topics with colleagues may not recognise the impact of their behaviour on others, e.g., by

describing workplaces behaviours as "towards" or "away" moves (Lee-Baggley & Grant, 2023).

Guidelines to support sleep hygiene in shift workers.

As a shift worker, it can be difficult to get enough good quality sleep, which can impact health, wellbeing, job performance, and safety. Research from Central Queensland and Sydney Universities have explored sleep hygiene in shift workers and developed new guidelines. Consisting of 18 recommendations, the advice range from sleep environment and dietary recommendations, to number of hours of sleep to aim for and how to set up routines for naps and bedtime (Shriane et al., 2023).

The use of apps for mental health is increasing but the area is largely unregulated.

The use of technology to support telehealth alternatives to in-person care is expanding and has led to the development of apps to support mental health. These range from diagnostic and self-help tools to platforms that connect users to AI or real therapists. As Australia is reported as one of the leading consumers of apps for mental wellbeing, concerns are rising around the lack of regulation. Being exempt from the Therapeutic Goods Act, the Australian Commission on Safety and Quality in Healthcare has developed a standards and accreditations framework, both of which are voluntary. Questions around data privacy and quality of service that mental health apps are providing users remain (Nichols, 2023).

Physical harm

Hazardous chemicals and materials

Model regulations amendment on engineered stone processing.

The *Model Work Health and Safety Regulations Amendment (Engineered Stone) 2023* prohibits uncontrolled processing of engineered stone products containing crystalline silica. Controlled processing involves at least one of the following systems: a water delivery system that supplies a continuous feed of water over the area being cut to suppress the generation of dust; an on-tool dust-extraction system; and/or a local ventilation system. Moreover, all processing workers must be provided with respiratory protective equipment, designed to prevent inhalation of airborne contaminants that complies with Australian standards. Penalties apply to noncompliant individuals and bodies corporate up to $6,000 and $30,000, respectively (Safe Work Australia, 2023d).

Discussions continue on engineered stone ban while waiting on Safe Work Australia report.

While the national model WHS Regulations have been amended to ban hazardous work processes associated with engineered stone (Safe Work Australia, 2023d), the discussions around a ban on engineered stone products continue. Safe Work Australia undertook consultation on a prohibition of engineered stone in March 2023 and an independent economic analysis and expert review of the evidence was delivered in August 2023 (Safe Work Australia, 2023h). However, the report was not released until after the WHS Ministers meeting in late October (Thompson, 2023), recommending a prohibition on the use of all engineered stone, irrespective of crystalline silica content, to protect the health and safety of workers (Safe Work Australia, 2023a). Key stakeholders were pressuring the release of the report ahead of the meeting as opinions on a ban strongly differ. In NSW, the Government recently blocked a bid for a complete ban from the Greens but agreed to a nationally uniform ban on silica concentrations over 40% (OHSAlert, 2023e). In Victoria, a licensing scheme has been put forward as the preferred option, while in Queensland, the Industrial Relations Minister has asserted her. commitment to a complete ban. The Australian Chamber of Commerce and Industry opposes a blanket ban and licensing, while Master Builders Australia has previously stated it would support a ban on stone containing more than 40% silica, so long as removal or modification of existing products, such as kitchen benchtops, are not subjected to additional red tape (Thompson, 2023).

Manufacturing campaign highlights dangers from metalworking fluids.

Exposure to metalworking fluids or coolants can cause harm to the lungs and skin through inhalation or direct contact with unprotected skin; particularly the hands, forearms and face. Inspections of manufacturing businesses by the Health and Safety Executive (HSE) in the UK have discovered challenges controlling risks associated with metal working fluids used with computer numerical control (CNC) machines. Breathing in the mist generated by machining can lead to lung diseases such as occupational asthma and occupational hypersensitivity pneumonitis. The HSE campaign is focusing on raising awareness of the importance of local air ventilation, regular fluid quality checks and worker health checks (HSE, 2023c).

New workplace exposure limits for diesel emissions.

Safe Work Australia has released a report that explored the prevention of diesel-related cancers and other diseases hinges on keeping exposure levels low (SLR, 2022). This includes exposure to diesel particulate matter as well as other harmful constituents, such as nitrogen dioxide, polycyclic aromatic hydrocarbons and aldehydes. Other recommendations from the report included a 'Carcinogenicity Category 1A' notation and a proposed 8-hour time weighted average of 15 µg REC/m^3 for diesel particulate matter as respirable elemental carbon. Safe Work Australia undertook consultation on the proposed workplace exposure standard in May 2023 (Safe Work Australia, 2023c).

WorkSafe WA developing new guide on managing radioactive material in mining.

Between 18 August and 13 October, WA's Mining and Petroleum Advisory Committee was seeking feedback on its draft guide on managing naturally occurring radioactive material in mining and mineral processing. The document provides guidance for mine operators on the legislative requirement to develop and implement a radiation management plan to minimise the potential exposure of mine workers and members of the public from naturally occurring radionuclides (DMIRS, 2023c).

Exposure to cleaning and disinfecting chemicals in healthcare.

Certain workplace exposures in the healthcare industry have been investigated. There is some evidence to suggest a dose-response relationship may be present between exposure to cleaning and disinfection chemicals and risk of developing work-related asthma (Wilson et al., 2023).

Spotlight: Welding fumes

Welding is a widespread activity, engaging over 10 million workers worldwide and 60,000 in Australia, across various industries. Welding poses significant WHS risks due to exposure to fumes; very fine particles that are readily inhaled. Welding in confined spaces and certain welding methods, such as shielded metal arc welding (SMAW), flux-cored arc welding (FCAW), and metal inert gas (MIG) welding, tend to lead to higher exposure levels than other welding types (Carey et al., 2023).

Reduction in exposure limits from 5 to 1 mg/m^3

Australia first adopted the Workplace Exposure Standards for airborne contaminants (WES) in 1995. Since the last comprehensive review in 2003, more evidence has emerged in relation to the harmful effects of many chemicals and the thresholds below which no adverse effects are observed. Workers who are regularly exposed to welding fumes exceeding the applicable workplace exposure standard are potentially being overexposed to known cancer-causing agents (Safe Work Australia, 2023k). The WES list has recently been reviewed by SafeWork Australia members in relation to welding fumes, who agreed to advise Australia WHS ministers to slash the exposure standard from an 8-hour time weight average of 5 mg/m^3 to 1 mg/m^3 (OHSAlert, 2023h). The new proposed limit of 1 mg/m^3 brings Australia in line with the Netherlands, which has had the lowest limit in the world for some time (Könning, 2023).

Table 1: Welding fumes exposure limits per country (reproduced based on Könning, 2023).

Country	Exposure Limit	Country	Exposure Limit
Netherlands:	1 mg/m^3	France:	5 mg/m^3
Germany:	1.25 mg/m^3	Ireland:	5 mg/m^3
Great Britain:	4 mg/m^3	Canada:	5 mg/m^3
China:	4 mg/m^3	New Zealand:	5 mg/m^3
Latvia	4 mg/m^3	Austria:	5 mg/m^3
Belgium	5 mg/m^3	Singapore:	5 mg/m^3
Australia	5 mg/m^3	Spain:	5 mg/m^3

Australian regulators can leverage international WHS resources on welding fume harms.

A comparison of national and international regulatory bodies found differences in focus on welding fumes, Codes of Practice, recency of publications or reviews, and availability of guides, fact sheets and other educational tools. The Australian states and territories appear to have limited information and resources specifically aimed at welding fume harm, with Codes of Practice being the primary reference source adopted by NSW, QLD, SA and WA. However, international regulators, such as the Canadian Centre for Occupational Health and Safety (CCOHS, 2023), the United States' National Institute for Occupational Safety and Health

(NIOSH, 2023), and the UK's Health and Safety Executive (HSE, 2023b) have provided a range of resources. These include fact sheets, comprehensive welder's health and safety guides (spanning up to 150 pages), dedicated webpages, and recent research findings.

NSW regulator gives recommendations for safe welding in the mining industry.

Following the international agency on research for cancer, reclassifying welding fume from group 2B "possibly carcinogenic to humans" to group 1 "carcinogenic to humans" (NSW Resources Regulator, 2018), the NSW Resources Regulator made five recommendations after assessing mining operations at a number of NSW sites (NSW Resources Regulator, 2023). Recommendations were as follows:

1. Welding processes must be subject to risk assessment, and the hierarchy of controls applied to controlling the risks associated with welding fumes.
2. Appropriate information and training should be provided to all workers at risk from welding fumes, including contractors.
3. Appropriate PPE must be provided to at-risk workers who undertake welding work.
4. Mine operators should develop and implement processes to monitor and assess compliance with identified risk controls.
5. Occupational hygiene assessment and monitoring programs should be expanded to incorporate worker exposure to welding fumes.

Health issues include respiratory disease, cancer, kidney damage and hormonal disruption.

There is a significant body of literature linking welding fumes to respiratory conditions, including chronic obstructive pulmonary disease, asthma, and impaired respiratory function. Recent research has reported significant relationships between copper in welding fumes and obstructive peripheral airflow (Saadiani et al., 2023). Further variations in nanoparticle composition within welding fumes can also influence inhalation toxicity, which can lead to cell health decreased and genetic changes (Xia et al., 2023). In addition to the IARC's reclassification of welding fumes to group 1 "carcinogenic to humans" in 2021, Gupta (2023) recently undertook a systematic review that further demonstrated associations between lung cancer and occupational hazards from exposure to welding fumes. Further research has reported DNA damage as a result of exposure to mixtures of pollutants in welding can also occur in kidney cells (Soltanpour et al., 2023).

Other recent research has shown a link between exposure to welding fumes and neurological disorders, including Alzheimer's. Welders exhibit elevated levels of multiple metals in their bloodstream, a factor linked to changes in brain diffusivity and decreased cognitive

functioning (Lee et al., 2023). Similarly, metal levels in welders can cause hormonal disruption, causing changes in oxidative stress, potentially harming male reproductive health (Fouad & Ramadan, 2023). Despite not being statistically significant, the elevated thyroid-stimulating hormone and reduction in other regulatory hormones in welders suggest a potential risk of hypothyroidism due to prolonged exposure to welding fumes (Farooq et al., 2023).

Engineering and PPE solutions can reduce exposure.

Key strategies to reduce exposure to welding fumes include engineering controls and PPE (Salvador). Examples of engineering and administrative controls are reducing exposure times, real-time air monitoring, modifying enclosures around the welder, and managing ventilation and using local exhaust systems to remove fumes and gases from the welder's breathing zone (Knott et al., 2023; Salvador, 2023; Zhang et al., 2023).

Knott et al. (2023) compared the effectiveness of three specific controls and concluded that powered air purifying respirators (PAPR) was the most effective, providing 52 times better protection than current Australian and New Zealand standards. On-gun LEV was not as effective, likely to reduce welding fume concentrations in the breathing zone by a factor of 12 and Local exhaust ventilation (LEV) reduced concentrations by a factor of 9.

Another recent study found a new design of protective clothing made from material to reduce vapor fumes and with a lapel collar to prevent fumes from touching the skin of the neck was more effective than previous protective clothing, although not recommended as a sole control method (Jin et al., 2023).

Awareness and concern for welding fume harm is lacking.

Analysis of social media, including X and Reddit, on the topic of welding fume harm revealed very little commentary, with only an average of 9 tweets per 7 days. This may reflect a lack of awareness and concern of this emerging WHS harm.

The literature suggests that awareness of welding fume impacts has increased in recent years, but widely acknowledges that some are still unaware, especially of the recent reclassification of welding fumes as carcinogenic (IARC, 2018). The level of concern from workers and businesses also varies and although concern is linked to awareness, not all who are aware are concerned (Carey et al., 2023).

Significance of proper training and educational programs has been underscored to ensure that welding professionals are well-informed about potential risks and proficient in the correct

use of PPE. Further research is however needed to establish the effectiveness of information, resources and training programs in reducing incidents (Salvador, 2023).

New ways of working

Flexible working

4-day work week trends are expanding across Australia.

The use of flexible working arrangements is expanding. In addition to hybrid working, remote working, unlimited leave, gender neutral parental leave and flexible public holidays is the four-day work week (4DWW). A recent report of interviews with 10 senior managers across Victoria, New South Wales, Queensland and Western Australia, who have adopted the 100:80:100 model (100% of the pay for 80% of the hours with 100% of the productivity) showed improvement across a range of areas. It appears that 4DWW, being a privilege that can be taken away, works as a strong motivator for workers to cut out unproductive tasks and behaviours to maintain quality and productivity in fewer hours. Some of these changes were cutting unnecessary meetings, deprioritising non-essential work and redesigning work flows around the workers' strengths. The senior managers rated the success of 4DWW at 9.25 out 10. This included benefits such as maintained and improved productivity, reduced sick days, reduced stress, improved work-life balance measures, and better health and wellness (John Hopkins et al., 2023).

The increasing momentum for the 4DWW is supported by unions sharing their experience negotiating the 4DWW into enterprise bargaining agreements. An interview with an Australian Services Union official revealed the union has negotiated the deal in two agreements thus far and that 5 to 10 other organisations are currently in discussions (Ziffer, 2023).

Spotlight: The harms from hybrid working

The COVID-19 pandemic contributed to transitioning remote work from a temporary solution to a long-term practice. Post-COVID, employers and workers alike have recognised the advantages of flexibility, driving a significant rise in hybrid working (i.e., working flexibly across locations and time of day, such as from home or from third locations). The increase reflects a broader transformation in the way work-life balance and professional collaboration are perceived.

Increased rates of hybrid working post-COVID.

In Australia, more than 40% of employees consistently worked from home in 2022, a significant increase from the 30% pre-pandemic level (Statista, 2023). As of July 2023, remote working in Australia remains high, indicated by the number of job postings mentioning 'work from home' or similar. Over the past two years, a significant number of Australian job postings, more than one in eight, have mentioned phrases like 'work from home' 'WFH' or 'work

remotely'. The Australian Government's recent *White Paper on Jobs and Opportunities* indicate over 10% of job listings currently offer the opportunity to work remotely, indicating a trend where workers negotiate not only wages but working conditions (Treasury, 2023). The ability to work remotely is most common in sectors like information, media, telecommunications, and financial and insurance services. As of March 2023, Australian Professionals and Managers averaged around three remote workdays per week (Statista, 2023).

Negative impacts from hybrid working include blurred boundaries between work and personal life, social isolation, and constant connectivity.

While hybrid working undoubtedly offers many benefits, such as control and flexibility (Ashish et al., 2022), and most research indicates it is beneficial when employees *choose* to work from home (Hall et al., 2023), its prevalence poses new WHS challenges related to mental health. Negative impacts are largely related to blurred boundaries between work and personal life, social isolation, and constant connectivity. These contribute to a higher risk of psychosocial issues (Ashish et al., 2022; Hall et al., 2023), and may be more pronounced when working from home is mandated (Hall et al., 2023).

Respondents to our inspector and WHS professional surveys echoed the risks around feelings of isolation, surveillance, work life balance and constant connectivity leading to risks of fatigue and burnout. Our respondents raised concerns that attitudes have become increasingly "relaxed" around the potential harms from home working, stressing that it is a relatively new trend with long-term risks that may not have been adequately addressed.

> *Working in isolation i.e., from home and utilisation of more technology which is good but the risks both actual and developing, short and long term, are not fully understood.*

The Australian WHS Survey likewise reported concerns related to flexible working arrangements, including working from home, from remote locations, across cultures and geographies, and/or hybrid work. Issues included lack of physical activity and work life balance, such as long working hours, increasing work stress, lack of rest and recovery time, disconnection from the workplace and loneliness.

> *Working from home means that there is no collegiality, and everyone is just in their own bubble. It's quite dehumanizing and management make no attempt to do anything about it.*

'One-size-fits-all' approaches to managing workers' mental health are likely to be ineffective.

The impact of home working has particularly come under increased scrutiny. Multiple reviews and meta-analyses indicate working from home is not uniformly positive or negative but mediated by a range of personal circumstances. 'One-size-fits-all' approaches to managing workers' mental health are thus unlikely to be effective (e.g., Ferrara et al., 2022; Hall et al., 2023; Oakman et al., 2020). For example, a US survey (n = 7400) found working at home increased the likelihood of job stress by 22% but also job satisfaction by 65% (Ray & Pana-Cryan, 2021). While flexibility had a beneficial effect, being able to change one's schedule decreased the likelihood of job stress by 20% and increased the likelihood of job satisfaction by 62% (Ray & Pana-Cryan, 2021). As such, the Institution of Occupational Safety and Health (IOSH) has emphasised that there is no universal solution for supporting flexible working, and that organisations should develop systems to accommodate individual needs whenever feasible (IOSH, 2023). The consistency of research findings demonstrating negative effects also indicates that mental health risks associated with hybrid working must be taken seriously by WHS regulators.

Solitary working and lack of a shared social identity can lead to loneliness and isolation.

A recent systematic review of 27 studies found that working from home can increase feelings of isolation, a strong predictor of poor mental health outcomes. The risk, however, is mediated by multiple factors. For example, those living in solitary circumstances may be considered high risk in this regard (Leigh-Hunt et al., 2017). However, it is not only solitary working that leads to loneliness and isolation but the lack of a shared social identity with colleagues. Shared social identity is a strong predictor of reduced workplace stress (Haslam & van Dick, 2011) and burnout (Haslam et al., 2009).

Working from home or other remote locations can thus make people feel lonely and socially isolated as they miss out on chances to form meaningful relationships with co-workers and make workplace social ties (Golden, 2006; Johnson et al., 2020) Fewer interactions with colleagues in a traditional office setting can contribute to depression and anxiety, related to concerns about missed opportunities and misperceptions about competency (Johnson et al., 2020). Studies have found that workers who feel excluded at work tend to have lower well-being and higher distress (Johnson et al., 2020). It is well established that loneliness is a source of chronic stress, poor sleep, and feelings of sadness, depression, and anxiety (Lippke & Warner, 2023). Managers must therefore ensure regular social integration to mitigate these effects.

Increased use of surveillance techniques to monitor worker activities.

Worker surveillance or 'electronic performance monitoring' (EPM) has been widely adopted in workplaces using technology to observe, record, and analyse worker performance, safety outcomes (e.g., identifying phishing attempts), and development opportunities (e.g., to identify strengths ;Ravid et al., 2023). Another form of monitoring, known as *Surveillance/Authoritarian EPM*, has little rationale other than collecting worker information (Ravid et al., 2023). Worker monitoring at large companies has doubled since early 2020, and annual sales of monitoring software has been projected to rise from about $488m in 2022 to $1.7bn by 2029 (Marks, 2022; Morgan & Nolan, 2023). A US survey conducted in early 2021, involving 2,000 workers and 2,000 remote or hybrid workers, found that 78% of companies use monitoring software to track performance and online activities (Belton, 2023). Additionally, 90% keep tabs on the time workers spend working versus engaging in unrelated activities, while 73% use recorded calls, emails, or messages to evaluate performance during reviews.

Electronic surveillance erodes privacy and trust and can negatively impact mental health.

A considerable body of research indicates that monitoring workers can significantly impact mental health. Some forms of monitoring, such as electronic surveillance, can be perceived as invasive and erode privacy, leading to stress, anxiety, and reduced job satisfaction (Siegel et al., 2022). Similarly, excessive monitoring can create a sense of distrust and decrease employees' sense of autonomy and control, which can lead to negative emotional responses. A systematic review conducted by Lopes et al. (2022) found that electronic monitoring, specifically, can be perceived as intrusive and negatively impact privacy, trust, and autonomy, leading to increased stress, anxiety, and reduced job satisfaction. The authors used 'electronic monitoring' to describe a broad range of practices utilising technology to observe, track, or collect data on worker activities, such as internet use, email, and social media, as well as monitoring physical activities like movements and interactions with other employees.

The negative impacts appear to outweigh potential positives. A meta-analysis of 96 independent samples (N = 23,461) demonstrated that EPM does not enhance worker performance, and leads to increased stress and strain among employees, irrespective of the monitoring methods used (Ravid et al., 2023). The authors suggested that organisations adopting transparent and less invasive monitoring approaches tend to receive more positive responses from their workers.

These effects fall into a broader inability to use technology in a healthy manner, which has now been identified as a significant workplace risk, known as 'techno-stress'. A systematic review of 40 years of research identified unique impacts of techno-stress, including higher

cortisol, cognitive impairment (e.g., memory and concentration) and irritability (La Torre et al., 2019).

Working from home makes it difficult to disconnect.

Remote work has been linked to greater work satisfaction and wellbeing (Anderson et al., 2015; Bentley et al., 2016), and largely has a positive influence on work-life balance due to affording greater devotion to family time (Kaufman & Taniguchi, 2021). However, those working flexibly – especially from home - may find it challenging to mentally disconnect, particularly when working hours become less defined (Ferrara et al., 2022; Johnson et al., 2020). Work-related electronic communication during non-working hours has negative shown impacts on fatigue, vigilance and sleep quality (Ikeda et al., 2023). Additionally, working from home can diminish the usual rejuvenating effects of leaving the office, impacting cognitive, emotional, and physical well-being (Baines & Gelder, 2003; Geurts & Sonnentag, 2006; Hartig et al., 2007). Research demonstrates that using technology for work at home, without established boundaries, can also disturb sleep quality and psychological disengagement (Barber & Jenkins, 2014).

Flexible working arrangements are assumed to provide individuals with more time and energy for health-promoting activities and, consequently, reduce stress (Ferrara et al., 2022). A recent meta-analysis (Shifrin & Michel, 2022) examined the relationship between flexible working and health outcomes and found only a small positive association with better physical health, reduced absenteeism, and fewer somatic symptoms. The study found no significant link to increased physical activity. This inconsistency might be due to unanticipated consequences, such as workers working longer hours due to flexible working, leaving less time for exercise. Moreover, blurred work-life boundaries, limited autonomy at work, and feeling excluded from decision-making, can lead to elevated occupational stress. This stress can interfere with the ability to properly process cognitive, emotional, and physiological brain responses in the long run, which may result in issues such as memory loss and difficulty concentrating.

Working from third locations can protect against isolation and loneliness.

Workers who work from home and take regular breaks outside of their work environment experience positive changes in their well-being (Walker et al., 2023). Research into the use of working from third locations has found that users typically seek a mental break, organic social interaction and spontaneous conversations, all of which help them think more creatively and re-focus on their work tasks ((John; Hopkins et al., 2023).

Clear expectations and regular contact can help workers switch off.

While there are gaps in the research making it difficult to identify both causative (e.g., loneliness) and mitigating factors (e.g., number of days in the office) related to working at home, negative impacts of flexible working can be mitigated by multiple strategies. Examples include clarifying expectations around working hours and role responsibilities to help workers "switch off". Informal and formal systems can be implemented to facilitate regular contact between workers who are co-located. This includes both virtual meetings and regular days in the office. Managers should also be provided with training to implement appropriate supports. Safe Work Australia has developed guidance and support for workers and businesses for managing risks associated with working from home, outlining the risk management process for both physical as well as psychosocial hazards, emphasising the importance of consultation and monitoring (Safe Work Australia, 2023j).

Gig economy

Death of food delivery workers prompt calls for reforms to overseas driver license rules and road safety training.

As the deaths of two Sydney food delivery workers raises the fatality toll to 13 food delivery workers since 2017, concerns have been raised around Australian driver licence rules. Currently, temporary visa holders can drive on overseas licences for six months before having to pass a local test. This grace period leaves inexperienced motorists vulnerable when navigating unfamiliar road conditions. Calls have been made to gig economy platforms that road safety training and verification should be included in worker inductions (Feng, 2023).

Recent enforcement action against food delivery platform Fantuan resulted in the platform being given four penalty notices totalling $13,600 as well as improvement notices after discovering the company had not provided adequate training on hazard and fatigue management, road safety, the use of PPE and WHS obligations. The WHS regulator will be following up with the platform and failure to comply with any future improvement notice can result in a fine of more than $300,000 (OHSAlert, 2023f).

Safe Work Australia has also run the "Deliver yourself home safely" campaign to increase awareness and knowledge of WHS among delivery drivers. The campaign ran from May to September 2023 and provided practical information and key contact details to help influence positive WHS attitudes and behaviours. The campaign kit included posters, checklists, social media tiles, infographics, and fact sheets (Safe Work Australia, 2023b).

New survey sheds light on the realities of transport gig workers.

A survey conducted by McKell, TWU, and TEACHO included over 1000 food delivery, rideshare, and AmazonFlex drivers. The respondents revealed that long hours and the use of multiple apps or platforms were necessary to make ends meet. Stress, anxiety, other mental health issues and fear of deactivation were common and about half of the respondents reported that WHS had to be sacrificed to earn enough money and protect their job. Over half of the survey respondents had experienced threatening and abusive behaviour, a third had been physically injured, and one in seven had experienced sexual harassment while working (Mawhinny et al., 2023).

Respondents from the Australian WHS Survey reported concerns about new services being added to existing delivery services by gig platforms using e-bikes, stating that there are items that are too big and heavy for bicycle delivery, creating safety issues for riders.

Review of digital platform work provides recommendations to platforms and workers.

The EU-OSHA has published two discussion papers on WHS risks associated with digital platform work. This included exploring WHS impacts and diversity as well as WHS initiatives from regulators, platforms, platform industries, non-governmental organisations, social dialogue organisations and workers to reduce risk. The reports highlight that WHS risks are aggravated for certain groups of workers, including those from migrant and ethnic minorities, women and those with a disability, chronic illness or condition. Recommendations to improve conditions for these workers include making entry and intermediation inclusive, consider ways for career progression, prioritising incidents of discrimination, harassment and unfair treatment, and ensuring voices of workers are heard. There is a need to improve the working and employment conditions of workers and WHS overall. Recommendations to improve WHS for platforms include incorporating WHS features and ways for workers to communicate into their apps, transparent WHS reporting into their systems and processes, person-to-person management strategies, and emergency features such as panic buttons and 'risk heat maps'. Further investment needs to be made into developing training and awareness material, fit-for-purpose terms of service and WHS policies, providing PPE and prioritising mental health and wellbeing practices. For workers to improve WHS, the reports encourage participation in the broader gig-community, advocating for their rights, sharing their stories, seeking mentors or "buddies" and continuing to implement safe work practices (EU-OSHA, 2023g).

Technology

World Economic Forum lists top 10 emerging technologies.

The tenth iteration of the World Economic Forum survey on emerging technologies included 69 experts from academia and industry, and considered the criteria of novelty, applicability, depth and power. Impact of the technologies were also considered in terms of impacts on people, planet, prosperity, industry and equity. The following are the top 10 emerging technologies of 2023 (World Economic Forum, 2023):

1. Flexible batteries – powering wearable technologies such as e-textiles. Current applications include medical devices and sensors, flexible displays and smart watches.
2. Generative AI – creates new content based on patterns in data. Current applications focus on developing text, computer programming, images and sound.
3. Sustainable aviation fuel – production from biological (e.g., biomass) and non-biological (e.g., CO2) resources is increasing as the industry aims for net-zero emissions.
4. Designer phages – engineered viruses can improve human wellbeing and agricultural productivity through preventing disease or producing beneficial chemicals.
5. Metaverse for mental health – shared virtual spaces for people to interact. Current applications include gaming platforms used to increase engagement and destigmatise mental health.
6. Wearable plant sensors – monitoring of individual plants to improve plant health and agricultural productivity through optimising yields, minimising water, fertiliser and pesticide use, and detecting early signs of disease.
7. Spatial omics - combining advanced imaging with the specificity and resolution of DNA sequencing, this technology enables the mapping of the what, where and when of biological processes at the molecular level.
8. Flexible neural electronics – allows the electrical signals the brain produces to be captured and translated into instructions for a computer to understand and execute. Currently in clinical trials.
9. Sustainable computing – reducing the energy use by data centres through AI, intelligent heat management, and novel computer architectures.
10. AI-facilitated healthcare – improving access to care through AI coordination of patients and facilities and supports forward planning, e.g., anticipating impending pandemics and other health crises.

Farmers welcome Apple's new safety system using satellite to send SOS messages.

Large parts of Australia have limited or no mobile phone reception. This means that those without dedicated equipment are unable to call for assistance in emergency situations. Updates to Apple's next gen safety system provides users with the feature of using satellite connections to message emergency services and share their location with contacts when outside cellular and Wi-Fi coverage (Apple Inc., 2023). NSW Farmers reports that this new feature is going to be a lifesaver for rural and remote communities (NSW Farmers, 2023b).

EU-OSHA recommendations on implementing smart digital monitoring systems for WHS.

The use of AI, machine learning, wearable sensors, and big data applications are changing the landscape of WHS monitoring as these technologies are increasingly taken up by industry. In June 2023, the EU-OSHA released five policy briefs that provide recommendations on safe implementation of smart digital monitoring systems for WHS. Specifically, the briefs discussed benefits and potential challenges to employers and workers and underscored the importance of workforce participation in adoption and implementation. Recommendations included focusing on effective communication of available research and data, ensuring sustained efforts towards standardisation and inclusive implementation processes, along with the development of national policies to inform and train industry capability, and support access and adoption of these technologies (Battaglini, Kilic, et al., 2023; Battaglini, Toro, et al., 2023; Nicosia et al., 2023; Olausson & Broughton, 2023; Toro et al., 2023).

EU-OSHA provides case studies on the use of AI, robotics and collaborative robotics.

The increasing adoption of collaborative robots (cobots) has sparked safety concerns across a range of industries. EU-OSHA has published eight case studies on safely integrating collaborative robots into various work environments. The case studies focus on the use of cobots in the following areas:

- livestock manure cleaning (Heinold et al., 2023j)
- sawmill production (Heinold et al., 2023f)
- assembly lines and industrial manufacturing, (Heinold et al., 2023i)
- the automotive industry (Heinold et al., 2023g)
- palletising and de-palletising (Heinold et al., 2023k)
- steel manufacturing (Heinold et al., 2023l)
- plastic products manufacturing (Heinold et al., 2023b)
- medical diagnostics (Heinold et al., 2023c)

Similar concerns for AI based systems and advanced robotics for the automation of tasks led EU-OSHA to develop 11 case studies with a focus on WHS across industries such as manufacturing, construction, agriculture and more (Heinold et al., 2023m). Recommendations from the research include early worker involvement and consideration of WHS, functional communication strategies and strategies to increase workers familiarity with the systems.

This research is supported by five policy briefs. Analysis of the challenges and opportunities arising in case studies associated with automating physical tasks (Heinold et al., 2023e) and cognitive tasks (Heinold et al., 2023d) revealed that while every system is unique and has its own risk profile, systems also share opportunities and challenges for WHS. The way these are expressed in the workplace is however dependent on technology-independent factors such as workplace culture. The report recommends continuous monitoring and changes in WHS management as a result and labels psychosocial factors as those most difficult to overcome (Heinold et al., 2023a). Facilitating acceptance of AI systems was key to minimising organisational impact and can be achieved through investing time during planning to consider the larger context, ensuring that social interaction is not reduced, listening to workers' experiences and learning as experience with the systems grow (Heinold et al., 2023h).

CEOs invest in AI technology.

Ernst and Young's "CEO Outlook Pulse" survey captures the views of 1,200 CEOs across the globe on the macro environment and their capital allocation, investment, and transformation strategies. Two-thirds of CEOs said that more focus is needed on the ethical implications of AI and the management of unintended consequences. 89% of CEOs report integrating AI into capital allocation and just over half plan significant AI investments in the next year (Mak & Nicholson, 2023).

AI solution to increase HR productivity and efficiency.

A new intelligence solution, EY.ai Workforce, powered by IBM watsonx Orchestrate, uses artificial intelligence to automate HR tasks and processes and transform operations. The software packages automation into individual tasks and guides workers through common processes such as drafting job descriptions and extracting payroll reports. The interface is designed to make it easy for workers to access these automations, freeing up their time to focus on higher value work (Dimajo, 2023).

Increased focus on the use of drones for eliminating the risk of fall from heights.

Safety associated with drones, or unmanned aerial vehicles, is an increasing concern due to their growing use. For example, there are reports of drones being trialled in South Australia

for eliminating falls from heights as part of a camera installation program to improve surveillance and minimise the need for workers to access heights for activities such as patrolling (SafeWork SA, 2023a), and in Great Britain for spraying of pesticides (HSE, 2023a). As a consequence of increased adoption, a recent EU-OSHA report explored safety associated with unmanned aerial vehicles and advocates for a worker-centric perspective, including developing human-vehicle interaction strategies for non-expert workers and providing training to raise awareness, on harm prevention (EU-OSHA, 2023h).

Australian workers report key technologies they believe have the potential to prevent harm.

Respondents to our Australian WHS Survey, canvassing the opinions of nearly 1,500 workers, reported five technologies they believe have potential to prevent harm.

Artificial intelligence was one of most common new technologies reported. It was described as advanced algorithms being used to analyse patterns and detect potential harm in real-time. This is closely related to the second most common type of technology, being predictive models. By using big data analytics and machine learning algorithms, it is possible to analyse historical data to also predict potential risks in the future. This enables early detection and prevention.

The respondents also reported the use of robotics and other remote-controlled electronics as these allow operators to stay away from hazardous sites and environments. Similarly, smart safety nets, fitted with sensors and automated controls, were celebrated for their ability to detect and respond in real time to fall risks at high altitudes.

Finally, virtual (VR) and augmented reality (AR) technologies were reported as they provide more immersive training experiences, enabling the use of simulation where workers can practice and learn hazardous tasks in a safe environment.

Inspectors and WHS professionals report on benefits of WHS management software and apps.

The use of software and apps was a repeated theme across the inspector and WHS professional respondents to our surveys.

> *App based systems are now available nearly everywhere which are being used to track equipment maintenance, safety improvements, even provide alert systems for at-risk workers.*

While some reported concerns around a tick-and-flick culture emerging, others hailed centralised WHS management systems as useful tools for streamlining processes, such as incident reporting, risk assessment, hazard identification, control verification, safety inspections, action plans, reminders and data analysis. These systems also enable the tracking

of corrective actions, facilitate communication between teams and contractors, and enable ability to check quality of workmanship and inductions live in the field.

The move towards mobile digital devices also enables workers to conduct pre-start checks and report incidents or concerns on the fly. While sometimes difficult to read and browse, digital SWMS and other safety documentation becomes immediately and easily available through the app. Specific software mentioned by the respondents included notetaking software, virtual training packages, HR platforms that enhance oversight of the workforce, and GIS mapping tools for underground and overhead assets such as powerlines.

GIS mapping tool for overhead powerlines that puts persons in contact with the relevant asset owner.

Spotlight: Generative AI

Chat GPT enabled increased user uptake of generative Artificial Intelligence (AI)

Applications of Artificial Intelligence (AI) have evolved over the past decade and become an important part of Australian organisation operations (Solomon & Davis, 2023). While only 30% of Australians trust AI systems and less than half believe its benefits outweigh the risks, research shows that at least two-third of Australian organisations are using or planning to use AI systems to improve their productivity, achieve process efficiencies, improve customer service, and create new products (Solomon & Davis, 2023).

Generative AI is one of the most ground-breaking innovations based on AI techniques. Applying deep neural network models which have been trained using high amount of text, images, videos and sounds, the models generate new content based on user inputs and the training data. There are several tools, such as OpenAI ChatGPT, Google Bard and Microsoft Bing, which produce contents based on large language models (LLM), developed using Natural Language Processing (NLP) techniques. These products dramatically shortened the distance between AI-based tools and the end user by providing a platform to be applied to a wide range of applications (Gmyrek et al., 2023). ChatGPT is the most famous tool, growing faster than any other app (Rudolph et al., 2023) and fuelled debates about the opportunities and risks of using Generative AI in workplaces.

Generative AI can be applied in a high number of work tasks.

Research shows that the work tasks that can be completed with the help of Generative AI is very high. Walkowiak and MacDonald (2023) showed that Australian workers spend around 37% of their time completing tasks that could be completed by LLMs. When considering the occupational structure of the labour market, 80% of the Australian workforce have 20% of

their time allocated to tasks that could be completed by LLMs, while the other 20% of Australians spend 60% of their time allocated to such tasks. This could double to 40% with more capable Generative AI systems becoming available, suggesting the potential for significant productivity gains and job displacements with increased uptake of Generative AI.

Broad use cases for Generative AI across workplaces

Uptake of generative AI is mainly related to enhancing productivity, quality assurance and efficiency (Dwivedi et al., 2023; Javaid et al., 2023b). Key industries where this is occurring include banking, hospitality and tourism, information technology industries, law, construction, education and health (Dwivedi et al., 2023; Sullivan et al., 2023; Uddin, 2023). While the International Labour Organisation (ILO) found that mainly clerical roles will be impacted by the uptake of generative AI (ILO, 2023), considering the requirements and applications vary extensively across industries, it is challenging to categorise the use cases of Generative AI for different industries.

> *Given the speed of innovation, quantum of investment and lack of technical information, it is almost impossible to accurately forecast opportunities over the next decade. Known risks are clearer, but there are categories of emerging risks that are difficult to forecast. In the shorter term, generative AI, based on large language models (LLMs) and multimodal foundation models (MFMs), will likely impact everything from banking and finance to public services, education and creative industries. (Bell et al., 2023).*

Generative AI can support information campaigns and training.

Some use cases that are relevant to WHS include enhancing public health by providing information and strategies to prevent illnesses and disease (Biswas, 2023; Cascella et al., 2023), improving the learning experience for students (Health–Europe, 2023; Uddin, 2023), and increasing productivity and efficiency for teachers by generating teaching plans, teaching materials and feedback to students (Fui-Hoon Nah et al., 2023).

Sullivan et al. (2023) investigated the effects of using Generative AI in Australian education and found a lack of public discussion about the potential for ChatGPT to enhance participation and success for students from disadvantaged backgrounds. Similarly, while they found some integrity concerns, they also found opportunities to develop innovative assessment designs. Smolansky et al. (2023) conducted a survey to understand both educators and students' perspective on using Generative AI for assessment in higher education. Educators preferred adapted assessments that assumed AI would be used and encourage critical thinking but student reactions were mixed, in part due to concerns about a loss of creativity.

Risks include generating misinformation and bias.

As employing Generative AI to complete work tasks represents a new way of working, considerable caution should be taken before using these tools (Health–Europe, 2023). Tools such as ChatGPT generate content based on both factual and non-factual information, resulting in potentially incorrect information (Oviedo-Trespalacios et al., 2023). Oviedo-Trespalacios et al. (2023) asked experts' opinion on the responses provided by ChatGPT for nine safety situations and concluded that there is potential for significant risks. ChatGPT provided incorrect and potentially harmful statements and emphasised individual responsibility.

Moreover, the outputs of the Generative AI models highly depend on the trained models. If imbalanced or biased training data was used, the output might be biased. In this case, it might generate responses or recommendations that are in favour or against one person or group (Fui-Hoon Nah et al., 2023). This is important when there are serious concerns about transparency regarding the decision-making process and answers provided by generative AI (Sifat, 2023).

Addressing these concerns become more complicated when we realize that Generative AI such as ChatGPT were trained by data from different sociocultural contexts across the world (Fui-Hoon Nah et al., 2023). As Generative AI tools have limitations in understanding context of the topic, accountability for the content of these tools should be clear to avoid discrimination between different religions, races, nationalities, cultures, and genders (Ayinde et al., 2023; Fui-Hoon Nah et al., 2023).

The misuse of Generative AI refers to any deliberate use that could result in harmful, unethical or inappropriate outcomes (Brundage et al., 2020). The biased output and misinformation generated using Generative AI can be problematic when the users get into the habit of adopting the answers without rationalisation or verification (Fui-Hoon Nah et al., 2023). Incorrect information with a professionally written text and convincing tone can influence the user's judgment on credibility of the information (Oviedo-Trespalacios et al., 2023). Potential misuse can happen in cases such as offering diagnosis and treatment recommendations without proper validation or oversight (Fui-Hoon Nah et al., 2023). Excessive dependence on Generative AI technology can hinder the development of essential skills like creativity, critical thinking, and problem-solving (Iskender, 2023; Ntoutsi et al., 2020) and potentially lead to a bias in favour of automated recommendations, thus fostering human automation bias (Fui-Hoon Nah et al., 2023; Van Dis et al., 2023).

Incorrect information generated by AI could cause disastrous results in sensitive and continuously evolving industries, such as health care, where the data used for model training and the output of the models must be precise and up-to-date to provide trustworthy suggestions (Javaid et al., 2023a). Therefore, assessing and evaluating Generative AI applications necessitates input and feedback from a varied range of users and subject matter experts (Fui-Hoon Nah et al., 2023).

The inspector and WHS professional respondents to our surveys noted that the use of Generative AI for drafting emails, investigation reports, safe work method statements and other WHS management plans, procedures and training is on the rise. They raised concerns that AI was promoting users to cut corners and that irresponsible use of this technology may lead to non-compliant documents and worse.

> *As AI systems become more accessible, the temptation to farm out risk assessment and work method statements become increasingly attractive. The problem we face as regulators is that we can't always recognise when someone has used AI to write the report or investigation. We won't know that no thought went into it until someone is injured or worse.*

A WHS professional stressed the need to enforce regulatory guidance on the use of technology in the workplace while another emphasised the limited guidance available on the management of risks of AI in the workplace.

Concerns over job security.

Job security is another concern associated with the adoption of new AI-based tools, putting undue pressure on workers who are observing the rapid changes in their workplaces (Pan & Froese, 2023; Pereira et al., 2023). Indeed, worker respondents to our own Australian WHS Survey reported concerns about job losses.

> *With the development of automation technology, many traditional jobs may be replaced by robots or automated equipment, resulting in a large number of people unemployed.*

It is expected that 14% of the global workforce may have to change their professions because of AI-related advancements (Morandini et al., 2023). Our analysis on the social media, including Reddit and X, over the last six month shows that most activity is related to job and employment concerns along with revolution in workplaces. These concerns come from the possibility of technological unemployment and the future of work impacted by the new technology, increasing the needs for new skills in the future (Wach et al., 2023). However, there is little consensus among researchers on the effect of the AI-based tools on high-skilled workers where a mix of technical and soft skills are required (Wach et al., 2023). In addition,

many studies find that although some specific tasks within professions might be affected, the entire occupation cannot be replaced (Dengler & Matthes, 2018). Consequently, application of AI-based tools in workplaces should not be characterised by overall job loss, but rather by restructuring jobs and creating new job opportunities (Das, 2023; Morandini et al., 2023).

Negative worker concerns about the application of AI in workplaces can lead to negative perception of the opportunities that the tools can bring (Xu et al., 2023). To mitigate the effects of applying AI-based tools in workplaces in the future, organisations could provide customised training and development opportunities to prepare their workers for future changes (Morandini et al., 2023). If workers can update their current skills and obtain new ones, they can remain competitive in the employment market and help the organisation to achieve their goals (Wach et al., 2023).

Privacy, security and ethical concerns

There are serious concerns around privacy, security and ethical aspects of Generative AI in the workplace. When using the outputs of Generative AI, there should be a clear policy for privacy, security and ethical aspects. The data used by Generative AI tools might be confidential information and the output may infringe copyright and ownership rights (Ayinde et al., 2023). In addition, there is a serious concern about the approach for handling data and information users share with the tools as their input (Fui-Hoon Nah et al., 2023). For example, using generative AI for medical imaging analysis requires access to large volumes of patient data, which raises concerns about patient privacy and protection (Musalamadugu & Kannan, 2023).

Failure, malicious use or overuse may breach laws related to privacy, consumer protection, antidiscrimination, negligence, cyber security, and WHS.

Research conducted by Walkowiak and MacDonald (2023) found that Generative AI directly expose 12.4% of tasks in Australian market to privacy risks, 13.7% to cybersecurity risks, 13.6% to breach in professional standards risks, 14.1% to unethical or harmful bias risks, 10.6% to misinformation and manipulation risks, 26.4% to safety and physical harm risks, 26% to liability and accountability risks and 9.8% to intellectual property risks. Within the Australian workforce, considering all capabilities of Generative AI (including capabilities with complementary software investments and image capabilities), around 20% of the time of workers is allocated to tasks exposed to privacy, cybersecurity, and ethical and bias risks. This exposure rate within the labour force reaches 47.8% for accountability and liability risks and 8.5% for misinformation risks. In addition to the risks imposed from using Generative AI in Australian workplaces, Cebulla et al. (2023) interviewed 30 experts in data science, technology and WHS and identified psychosocial, work stress and workplace relational risks

that Australian organisations and workers face during AI implementation. They emphasised on development of intraorganisational communication frameworks to achieving a socially and collegially aware workplace with sound WHS and worker welfare processes in place.

EU Act to include disclosure on AI-generated content.

As part of its digital strategy, the European Commission proposed the first EU regulatory framework for AI in 2021. Recent amendments to this proposed landmark law in June 2023 aimed at revising the definition of AI systems, broadening the list of prohibited systems and for generative AI systems, like ChatGPT, impose obligations to disclose AI-generated content along with the copyrighted materials used to train it (Chee, 2023).

The proposed Act takes a risk-based approach and while some systems are seen as resulting in 'unacceptable risk', AI uses in the following areas are listed as 'high-risk', creating adverse impact on people's safety or fundamental rights (Madiega, 2023).

- Biometric identification and categorisation of natural persons
- Management and operation of critical infrastructure
- Education and vocational training
- Employment, worker management and access to self-employment
- Law enforcement
- Assistance in legal interpretation and application of the law

Many of these applications are relevant to the usage of AI to manage WHS. For example, our surveys of WHS professionals and WHS inspectors both identified that usage of ChatGPT for drafting emails, SWMS and other WHS documentation is already occurring. There was also significant mention of the use of sensors and data in managing workers, equipment and infrastructure as well as WHS enforcement. The draft Act is currently being negotiated with relevant EU countries and the final form of the law is expected by the end of this year.

Policy for using Generative AI in Australia.

Due to concerns about privacy and information security, a growing number of ChatGPT bans or restrictions has been imposed by organizations and countries (Fui-Hoon Nah et al., 2023; Ray, 2023). The European Union (EU) took the first step towards AI regulations where they passed one of the world's first formal rules for the technology requiring Generative AI systems to be reviewed before commercial release (Health–Europe, 2023). Some regulatory frameworks for the use of Generative AI in medical imaging analysis in Europe and USA have been provided, which are evolving (Musalamadugu & Kannan, 2023). These regulations mainly emphasise the

importance of transparency, accountability and performance monitoring in the development and deployment of AI-based medical devices (Musalamadugu & Kannan, 2023).

Solomon and Davis (2023) reported that Australia does not yet have AI-specific laws and the development and use of AI are regulated primarily by technology-neutral laws of general application. Weatherall and Henman (2023) discussed the specifications of an effective strategy to implement safe and responsible AI in Australia. Research shows that up to one third of Australian professionals have experienced using Generative AI in their work, which might expose organisations to risks if there is no clear policy in place (Solomon & Davis, 2023).

After the surge in using Generative AI in workplaces in Australia, the Australian governments reacted quickly to mitigate risks associated to this new phenomenon and several public inquiries focusing on Generative AI have been issued (Walkowiak & MacDonald, 2023). The House Standing Committee on Employment, Education and Training launched an inquiry into the use of Generative AI in the Australian education system. The aim of the inquiry is to control the impact of Generative AI on childhood education, schools and higher education providers. In another attempt, the Department of Industry, Science and Resources conducted consultation to collect opinions on how the Australian government can mitigate AI risks and promote safe and responsible AI practices in Australia. This was in addition to the research conducted by the Australia's National Science and Technology Council at the request of the Minister for Industry and Science regarding a synthesis of the opportunities and risks associated with a widespread diffusion of Generative AI in Australia (Bell et al., 2023). All these reports emphasise the necessity of identifying the potential opportunities and risks associated to applications of Generative AI in workplaces and providing clear policies to maximise the benefits and mitigate the negative effects.

Priority industries

Construction

Construction fatalities are higher than 1 year ago.

There were 26 fatalities in Construction in the year leading up to 28 September, 2023. This is a 100% increase on the 13 deaths recorded for the same period last year. The previous month showed a similar increase; 23 Construction fatalities up to August 31, compared to 15 in the year up to August 31, 2022 (Safe Work Australia, 2023g). This could represent an upward trend or be related to other factors worthy of investigation.

Independent review of the Federal Safety Commissioner

An independent review of the Federal Safety Commissioner is underway, carried out by experienced WHS consultant Marie Boland. The Commissioner was established in 2005 to improve the safety culture of the industry and is responsible for enhancing and monitoring safety through the development, administration and promotion of the WHS Accreditation Scheme. The independent review aims to evaluate the Commissioner's effectiveness and examine the merits of adopting a similar approach in other areas of Government procurement. Formal consultations for the review occurred between May and August 2023 (Australian Government, 2023d) and the consultation summary report raised the top issues raised within each of the consultation areas. A final report with recommendations to Government about the future of the Commissioner will be finalised in December 2023 (Boland, 2023).

Apprentices poorly trained and looked after in construction.

Recent concerns have been raised around apprentices in construction not receiving adequate training and rather being used as cheap labour. More than half drop out of their course before completion, often citing "workplace issues" as the cause (Schultz, 2023).

Safe Work Australia data exploring WHS outcomes for apprentices and trainees found that serious claims have risen disproportionately between 2016-17 to 2020-21. Most claims come from construction, involve wounds, lacerations, amputation and internal organ damage, resulting from being hit by moving objects, falls, slips and trips, body stressing and hitting objects with part of body (Safe Work Australia, 2023e).

There are however positive examples, such as the AiGroup Apprentice and Trainee Centre providing their apprentices with "top of the range" helmets fitted with a Powered Air Purifying Respirator System ensuring air quality when welding or grinding and eye protection from welder's flash and foreign objects along with training on how to wear the helmets correctly (Larter, 2023).

Increased use of workers with vulnerable profiles

Our inspector respondents reported an increased use of workers with vulnerable profiles in high-risk work. These include young workers, those with English as a second language or culturally and linguistically diverse (CALD).

Large CALD cohort of workers in asbestos removal.

Increase in incidents involving young workers.

Several respondents reported inadequate training due to language and literacy barriers, lack of supervision, and ultimately lack of understanding of what they are reading, signing and being exposed to. Others cited young worker attitudes being more about money than the work they do resulting in complacency, lack of interest and disregard of safety.

Several respondents also reported increased use of casual, labour hire and consultant workers. This included outsourcing work to the gig economy to avoid having to pay for things such as workers compensation insurance and employing large numbers of untrained workers on temporary or student visas.

Use of more casual workers and workers engaged through labour hire and employment placement services seems to have increased post Covid to bridge a gap between skills shortages and for coverage of sick workers.

Agriculture

Agriculture fatalities are higher than 1 year ago.

There were 35 fatalities in Agriculture in the year leading up to 12 October, 2023. This is over a 100% increase on the 14 deaths recorded for the same period last year (Safe Work Australia, 2023g). This could represent an upward trend or be related to other factors worthy of investigation.

Inquiry into WA agricultural industry recommends industry specific inspectors, awareness raising and guidance.

The Government of Western Australia's inquiry into the agricultural industry has published an independent report on WHS in the agricultural industry (Scott, 2023), along with the WA WorkSafe Commissioner's response (WorkSafe Commissioner, 2023). Recommendations from the inquiry include:

1. the establishment of a specialist agricultural team of inspectors and liaison officers, and an advisory service for farmers.
2. industry awareness-raising activities.

3. development of codes of practice and guidance notes.
4. information-sharing with industry on the causes of fatalities and serious injuries.

Increased financial pressure to control pests and weeds as drying conditions worsen.

A new survey from the Australian Bureau of Statistics has shown that the cost of controlling pests and weeds is increasing as the drying conditions worsen. Most concerns relate to the control of feral foxes, pigs, deer and mice while a smaller increase in weed related problems have been increasing since 2019. There is a need to develop plans that address the immediate threats of pests and weeds to prevent future losses. NSW Farmers is calling for government investment and commitment (NSW Farmers, 2023a).

Farm safety website "Your Farm - Your Future".

Earlier this year the Health and Safety Executive in the UK launched the website 'Your Farm – Your Future'. The website brings together advice on the safe use of vehicles on farms, the largest killer on farms over the past five years. Advice covers making the farm safer, being a safe driver and making the vehicle safer and provides videos, checklists and other guidance (HSE, 2023d).

Manufacturing

Labour and material supply pressures are easing but the sector faces less demand.

Australian manufacturing is facing challenges on multiple fronts, the latest ACCI-Westpac Industrial Trends Survey has found. Westpac senior economist Andrew Hanlan said that manufacturers are facing the weakest demand conditions in a decade (outside of the pandemic shock in 2020), as well as deteriorating profitability. In that environment, manufacturers will be cautious in both their hiring and investment decisions.
ACCI chief executive officer Andrew McKellar said: "Labour shortages that gripped the sector are no longer the central concern. Rather, it was a lack of new orders over the last six months that limited production" (ACCI, 2023).

Use of digital twins to improve manufacturing.

Mercedes-Benz has partnered with Nvidia to crease digital twins of its factories to make manufacturing more efficient. The digital twin model will enable the manufacturer to test ideas and revise them before they become reality. The virtual platform becomes a space for design, collaboration, planning and operating manufacturing and assembly facilities. The digital twin in production helps ensure Mercedes-Benz assembly lines can be retooled, configured and optimised in physically accurate simulations first (Takahashi, 2023).

Healthcare and Social Assistance

Disability Royal Commission recommendations to strength the disability workforce.

The Disability Royal Commission has released its final report exploring how people with disability can be protected from harm. The commission emphasised the need for skilled and capable disability support workers and supported a range of workforce solutions to improve the working conditions of disability workers, including training, remuneration and leave entitlements. This is expected to lead to a more highly skilled and engaged workforce, more successful recruitment and retention by service providers, and higher quality service provision to people with disabilities (Royal Commission, 2023).

Funding and migrant workers recommended to ease pressure on aged care workforce.

The third report by the Committee for Economic Development of Australia into the aged care sector describes increased economic pressure, causes and flow-on effects of the worker shortage, a lack of affordable housing and the impact on the healthcare system. The report recommends an Essential Skills Visa to bring in more overseas workers, introducing a user-pays system with income or asset thresholds, and measures to address nationwide housing shortages (CEDA, 2023).

Funding to improve safety of healthcare workers in remote and rural areas.

The South Australian Government has committed funding to expand its "On call Support Worker Program". The program will train more "second responders" and support construction of purpose-built staff housing, improving WHS protections for remote-area health workers. The initiative is enhancing protections under Gayle's Law, named after remote-area nurse Gayle Woodford, to ensure health practitioners are accompanied by a second responder then attending unscheduled or out-of-hours callouts (OHSAlert, 2023i).

Using design to reduce psychosocial risk in hospitals.

Using a human-centred co-design approach, a recent trial of using sensecaping to improve mental health and wellbeing in health care workers was undertaken (Thriving in health, 2023). The trial found that normal, ill-fitting, hospital scrubs were an "unconscious" source of stress for healthcare workers. Similarly, workers were negatively affected by noise pollution and lacked rest and recovery spaces. Design students thus developed and trialled scrubs tailored and 3D-knitted to the specific body of a healthcare worker along with sound-absorbing furniture made from affordable, compostable and carbon-neutral natural plastic.

While the technology needs to improve to roll out the prototypes large scale, participants were positive and have made changes as a result of the trial.

> *This project has made me understand the impact scrubs and uniforms have on mental health and I have decided to change how my scrubs make me feel. I no longer wear the generic navy scrubs I started this project with and instead have invested in bright, colourful scrubs [while waiting for technology to improve].*

Safety Huddles as part of the Occupational Violence and WHS Strategy.

Call for feedback from Health Services Union members on the draft Safety Huddle procedure. This procedure currently applies to all Canberra Health Services staff working within Secure Mental Health Services (SMHS) in the division of Mental Health, Justice Health, Alcohol and Drug Services (MHJHADS)The Safety Huddle is a communication tool used to maintain a safe working environment, by identifying and mitigating or managing safety issues that arise within the clinical environments of the Secure Mental Health Services. Safety issues can be occupational, environmental, operational or clinical. This procedure was developed following an initial trial and staff feedback (HSU, 2023).

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Appendix

Survey questions for WHS Inspectors

Intent	Question	Response	Response type
About you *Please tell us a little bit about yourself and your place of work*			
1. 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 • Comcare • Outside Australia [closure statement]	• Mandatory • Tick all that apply
2. Demographic: industry	In which industry do you do most of your work? Please select all that apply	• Generalist • Agriculture, Forestry and Fishing • Mining, oil and gas • Manufacturing • Construction • Health Care and Social Assistance • Transport, Postal, and Warehousing • Public Administration and Safety • Education and training • Telecommunications • Other (text box)	• Mandatory • Tick all that apply
3. Demographic: geography	In which geographic area do you do most of your inspections? Please select all that apply	• Rural • Remote • Metropolitan	• Mandatory • Tick all that apply
4a	*Please answer the following questions based on your general insights about the workplaces you have worked in over the past six months.*	NEW REGULATORY PRACTICES: • New gaps in the regulator's resources, information, policies, or framework that has made it difficult to secure compliance	• Mandatory

Intent	Question	Response	Response type
	In the past six months, have you come across: Please select all that apply. You will be asked to include more detail for every box you that you have checked above in the following questions.	• New ways the regulator is working that is driving compliance NEW HARMS: • 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 business trends that are driving non-compliance • New technologies or workplace innovations that are driving non-compliance • Other emerging issues, particular subgroups of workers at risk, or particular work settings to note NEW PREVENTIVE SOLUTIONS: • New WHS solutions that are preventing harm or facilitating compliance • New technologies or innovations that are preventing harm or facilitating compliance • None of the above	
4b	Please provide detail on the gaps that you have come across.	• [free input]	
4c	Please provide detail on the new ways the regulator is working that you have come across.	• [free input]	
4d	Please provide detail on the risks that you have come across.	• [free input]	
4e	Please provide detail on ways of working, or types	• [free input]	

Intent	Question	Response	Response type
	of work, that you have come across.		
4f	Please provide detail on the attitudes, behaviours, or practices, that you have come across.	• [free input]	
4g	Please provide detail on the trends that you have come across.	• [free input]	
4h	Please provide detail on the technologies or workplace innovations that you have come across.	• [free input]	
4i	Please provide detail on the WHS solutions that you have come across.	• [free input]	
4j	Please provide detail on the other emerging issues you have come across. You can refer to particular subgroups of workers at risk or particular work settings	• [free input]	
5	Do you have any key lessons learnt from enforcement outcomes and/or examples of best practice that 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?	• [free input]	

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	• Mandatory • Select one • Drop down menu
2. Demographic: Sector	What of the following best describes your organisation? Please respond based on the main organisation responsible for your workplace.	• Private Company • Public Company • Government • Non-Government organisation/Not for Profit • University • Association/Union • Other - please specify [free input]	• Mandatory • Select 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
Please answer the following questions based on your experience of work health and safety in Australian workplaces in the past six-months.			
4a	In the past six months, have you come across: *Please select all that apply* You will be asked to include more detail for every box you have selected in the following questions.	• 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	• Mandatory • Tick 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 • 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 areas of compliance that are lacking regulatory enforcement or that are otherwise poorly regulated that you have come across.	• [free input]	
4i	Please provide detail on the other emerging issues you have come across. You can refer to particular subgroups of workers at	• [free input]	

Intent	Question	Response	Response type
	risk or particular work settings.		
5. General observations	Is there anything else new you have seen that the WHS regulator should be aware of?	• [free input]	• Optional