Australian Work Health and Safety (WHS) Strategy
2023–2033

Baseline report on targets

July 2024

safe work australia

Disclaimer

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Safe Work Australia works with the Commonwealth, state and territory governments to improve work health and safety and workers' compensation arrangements. Safe Work Australia is a national policy body, not a regulator of work health and safety. The Commonwealth, states and territories have responsibility for regulating and enforcing work health and safety laws in their jurisdiction.

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Contents

Introduction

This Australian Work Health and Safety Strategy sets an ambitious vision for WHS outcomes in Australia – *safe and healthy work for all.*

Achieving the goal of reduced worker fatalities, injuries and illnesses will require sustained effort across identified priority action areas, including information and awareness, national coordination, data and intelligence gathering, health and safety leadership, and compliance and enforcement.

The Strategy was launched in 2023 and is agreed by Safe Work Australia Members and ministers with responsibility for work health and safety (WHS), demonstrating the commitment of all parties to work cooperatively to drive continual improvements in Australia's WHS performance.

More information about the Strategy can be found on the Safe Work Australia website[1], including further discussion of the system shifts that need to occur to effect change.

[1] https://www.safeworkaustralia.gov.au/awhs-strategy_23-33

Purpose of this report

The purpose of this report is to explore the baseline WHS context for Australia in 2023, the year in which the Strategy was introduced, and to consider the data against which its performance will be assessed over the next ten years through a set of measurable targets aimed at driving systemic improvements in WHS outcomes.

This report will present the targets, explain why they are important and highlight where change is needed, as well as setting the targets in a broader context. An accompanying technical report, *About the data*, contains further information about the main datasets used in this report. The *About the data* technical report includes how progress against each target will be measured as well as an introduction to the crucial evidence needed to build a complete picture of WHS, and guidance about how to interpret what the data does (and does not) say.

A landscape monitoring approach has been used through this report to frame the discussion of the targets. Consideration of a range of evidence sources helps to improve understanding of where, and how, gains can be made, identify what works to deliver systemic change, and to respond effectively to potential areas of increased risk. This will ensure the evidence base for taking action against the framework of the Strategy reflects the increasingly complex and dynamic nature of the changing world of work.

Work health and safety in Australia

A safe and healthy work environment is one of the International Labour Organisation's Fundamental Principles and Rights at Work. Health and safety is also widely recognised as a key dimension of job quality[2].

In Australia, the safety of work has improved significantly over time, as businesses, workers, unions and governments have strived to improve workplace safety through regulation, improved risk management and technology adoption[4]. Reflecting this progress, Australia's current work-related injury rate of 3.5% – that is, the proportion of people who experienced a work-related injury or illness in the previous 12 months – is roughly one-third the global rate of 12.1%[4].

However, in recent years, this momentum has slowed, or, as this report shows in some areas, reversed. There are still too many injuries and illnesses arising from work.

Work-related fatalities, injuries and illnesses have a devastating impact on workers, their families and the community[5]. Each year, just under 200 workers are killed by, and over 120,000 workers are compensated for, work-related injury or illness.

Findings from Safe Work Australia research[6] also show that, in the absence of work-related injuries and illnesses, on average each year Australia's economy would be $28.6 billion larger, 185,500 additional full-time equivalent jobs would be created, and workers across all occupations and skill levels would benefit from an average wage rise of 1.3%.

The benefits of achieving the goal of reduced worker injuries, illnesses and fatalities clearly cannot be overstated, however the challenges to overcome are significant. According to the latest data[7], 83% of work-related traumatic injury fatalities and 62% of serious workers' compensation claims occur in just six industries:

agriculture, forestry and fishing

construction

transport, postal and warehousing

manufacturing

health care and social assistance

public administration and safety

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[2] University of Warwick and Chartered Institute of Personnel and Development (2017), Research report: Understanding and measuring job quality, Part 1 – Thematic literature review, https://www.cipd.org/globalassets/media/knowledge/knowledge-hub/reports/understanding-and-measuring-job-quality-3_tcm18-33193.pdf

[3] The Treasury (2023), *Working Future: The Australian Government's White Paper on Jobs and Opportunities*

[4] Australian Bureau of Statistics Work-related injuries survey (2021-22); ILO estimates of work-related injuries and employment (2019).

[5] The Senate Education and Employment References Committee (2018), *They never came home – the framework surrounding the prevention, investigation and prosecution of industrial deaths in Australia,* https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Education_and_Employment/IndustrialdeathsinAus/Report

[6] Safe Work Australia (2022), *Safer, healthier, wealthier: The economic value of reducing work-related injuries and illnesses,* https://www.safeworkaustralia.gov.au/doc/safer-healthier-wealthier-economic-value-reducing-work-related-injuries-and-illnesses-summary-report

[7] Safe Work Australia (2023), *Key Work Health and Safety Statistics*, https://data.safeworkaustralia.gov.au/insights/key-whs-stats-2023

Further, serious claims for mental health conditions have increased substantially over the past ten years, up by 43.3%. This represents the largest growth in the number of claims for any type of injury or disease experienced by workers over the period. This issue is compounded by the fact that work-related mental health conditions are one of the costliest forms of work-related injury. According to Safe Work Australia's data, claims for these conditions lead to significantly more time off work (more than four times the median time lost across all claims) and higher compensation paid (slightly under four times the median compensation paid).

In the latest data, the most common type of mental health condition claim was for anxiety/stress disorders (45.8% of all mental health condition claims). This area of focus is supported by recent findings from the Australian Council of Trade Unions *Work shouldn't hurt survey 2023*, which found that more than one in three workers were exposed to stress at work, and one in four workers disagreed that there were enough people to do the job safely or that there was enough time.

The international landscape – growing awareness of long-term impacts from occupational diseases

Whilst Australia has a comparatively strong record for certain types of work-related health issues, new evidence is continuing to emerge that highlights the significant, long-term and ongoing impacts that work-related injuries and occupational diseases can have on workers.

Nearly three million workers die every year from work-related accidents and diseases globally[8]. According to analysis from the International Labour Organization (ILO), the vast majority of these work-related fatalities, some 88.7%, or 2.6 million deaths, result from work-related diseases, with accidents or traumatic injuries accounting for the remaining 11.3%, or 330,000 deaths.

Circulatory diseases, cancers and respiratory diseases rank among the top three causes of work-related death globally. Together, these three categories contribute more than three-quarters of total work-related mortality. Further, 3.2 to 4.6% of all cancer globally is estimated to be due to occupational carcinogen exposure[9], and whilst there was a decrease in the rate for deaths (–10%) due to exposure to occupational carcinogens between 1990 and 2016, the burden of disease in terms of personal health, other social aspects and economic costs is significant[10]. Cancer and other long-latency diseases caused by workplace exposures to harmful substances are difficult to distinguish in Australia's workers' compensation claims data and in broader national health statistics[11] but there is growing awareness of these exposures throughout the life course, long after workers have moved on to different jobs or are no longer in the labour force.

In addition to these insights about work-related fatalities, the ILO estimates that 395 million workers worldwide sustained non-fatal work injuries in 2019.

Achieving the Strategy's goal of reduced worker fatalities, injuries and illnesses will require a nuanced understanding of the wide spectrum of exposures that contribute to the work-related burden of disease and the incidence of poor health and safety outcomes. This includes looking beyond the scope of the initial set of targets explored in the Strategy, which do not currently consider the full picture of the impact of occupational diseases on Australia's working population. More examination is also needed to understand the inequities that exist between different cohorts of workers and in different jobs across a modern, evolving economy.

In relative terms, work-related fatalities from injuries and diseases represented **6.7%** of all deaths worldwide.

[8] International Labour Organization (2023), *A Call for Safer and Healthier Working Environments*.
[9] GBD 2016 Occupational Carcinogens Collaborators. Global and regional burden of cancer in 2016 arising from occupational exposure to selected carcinogens: a systematic analysis for the Global Burden of Disease Study 2016. *Occupational and Environmental Medicine* 2020; **77**:151-159. Accessed at: https://oem.bmj.com/content/77/3/151
[10] European Agency for Safety and Health at Work. Burden of Occupational Diseases. Latest update: 26/10/2022. Accessed at: https://oshwiki.osha.europa.eu/en/themes/burden-occupational-diseases#_edn2
[11] Cancer Council Western Australia, Occupational exposures to carcinogens in Australia, Monograph Series 2015.

Trends shaping the Australian economy

The nature of work, and workplaces, across Australia is changing. This is not a recent development. The work that underpins the economy and the jobs that this entails have changed significantly over the long-term.

The WHS and workers' compensation systems operate in the context of persistent and emerging challenges in Australia associated with this changing world of work. This includes an ageing population, rising demand for care and support services, rapid technological adoption in workplaces, and work-health inequities.

These challenges represent, or intersect with, megatrends shaping the Australian economy, and these complex interactions will require sophisticated and holistic approaches to address them. Positively, however, a changing work landscape also brings opportunities to improve WHS practices and make workplaces safer, whilst being aware of new or increased exposures to different types of harms or hazards that may emerge.

WHS policy and processes need to keep up with new and emerging workplaces and technologies to maintain responsiveness in this broad-based environment of change, touching on all aspects of working life and the transition to a knowledge-based, sustainable economy.

Success will look like a system with a renewed commitment to harmonisation, collaboration and common WHS fundamentals, so that health and safety is prioritised, businesses have greater certainty, and every Australian worker, no matter where they work, has the same safety protections. It will also mean a WHS environment that prevents worker fatalities, injuries and illnesses from occurring through focused engagement, consultation and cooperation.

Landmark reports, including *Workplace safety futures* (CSIRO Data 61, 2018), *Intergenerational report 2023: Australia's future to 2063* (The Treasury, 2023), *Working Future: The Australian Government's White Paper on Jobs and Opportunities* (The Treasury, 2023), and The Lancet's series on work and health (2023), provide the important context the WHS system will be operating within over the next ten years. The following summary draws key themes from these reports together to highlight the focus areas that Safe Work Australia, as the national policy body, will explore under the Strategy.

Snapshot

Every year, globally, an estimated **22.85 million occupational injuries** and **18,970 deaths** are attributable to excessive heat.

Climate change and the transition to a net zero economy

Climate change is already having serious impacts on the safety and health of workers in all regions of the world[12]. As the ILO establishes in its report *Ensuring safety and health at work in a changing climate*, billions of workers are exposed to hazards exacerbated by climate change, including from excessive heat, ultraviolet radiation, extreme weather events, workplace air pollution, vector-borne diseases and agrochemicals.

In Australia, research indicates these exposures affect millions of workers[13].

Further, strong evidence synthesised in the ILO report demonstrates that numerous health conditions in workers have been linked to climate change, including cancer, cardiovascular disease, respiratory illnesses, kidney dysfunction and mental health conditions, among many others.

New data tools like the Australian Climate Service Health-Heat Risk Index[14] are enabling stakeholders in the WHS system to identify greater relative exposure risks from a changing climate.

[12] Ensuring safety and health at work in a changing climate, Geneva: International Labour Organization, 2024
[13] Pega, et al (2023), Global, Regional and National Burdens of Non-Melanoma Skin Cancer Attributable to Occupational Exposure to Solar Ultraviolet Radiation for 183 Countries, 2000–2019: A Systematic Analysis from the WHO/ILO Joint Estimates of the Work-Related Burden of Disease and Injury. Environment International 181 (November): 108226.
[14] https://storymaps.arcgis.com/stories/ad21a54268e24dacae0f77df628e9285

Key focus areas:

Managing psychosocial risks
(workplace stress and mental health issues)

Health and safety vulnerability

Small businesses need additional support

Rise of AI, automation and related technologies

Workforce demographic shifts
(including population ageing)

Hybrid work

New types of work

Climate-related risks
(and the net zero economy transformation)

More complex supply chains

Factors known to affect workers' WHS vulnerability

including being younger, working alone, being from a culturally and linguistically diverse (CALD) background or working in a more complex contractual chain (e.g. labour hire).

The targets for performance monitoring

The data used in this report represents the latest information available in 2023, the start point for the ten-year Strategy.

The Strategy includes six quantitative and two activity-based targets for measuring progress against the overall goal of reduced worker fatalities, injuries and illnesses

The targets include quantitative measures designed to assess reduction in work-related fatalities and injuries or illnesses, and activity-based measures designed to increase preventative action in key areas over the ten years to 2033.

The adoption of a landscape monitoring approach, and consideration of evidence from quantitative, qualitative and action-based activities, underpins the monitoring of progress for the Strategy. This facilitates a more integrated understanding of the nature of work, and enables the performance of the system to reflect the experiences of workers within the modern economy. It also balances the limitations that may be present in any individual source of information , which are explored further in the accompanying technical report, About the data.

The targets

- ↓ A reduction in the number of worker fatalities caused by traumatic injuries of at least 30%
- ↓ A reduction in the frequency rate of serious claims resulting in one or more weeks off work of at least 20%
- ↓ A reduction in the frequency rate of permanent impairment by 15%
- ↓ A reduction of the overall incidence of work-related injury or illness among workers to below 3.5%
- ✖ No new cases of accelerated silicosis by 2033
- ↓ A reduction in the frequency rate of work-related respiratory disease by 20%
- ✔ All Safe Work Australia Members take action to increase the awareness of PCBUs about their duty to protect workers from exposure to harmful substances coinciding with the introduction of new workplace exposure standards
- ✔ All Safe Work Australia Members take action to build the capability of PCBUs, regulators and workers to strengthen compliance with the duty to manage psychosocial risks at work

Target 1

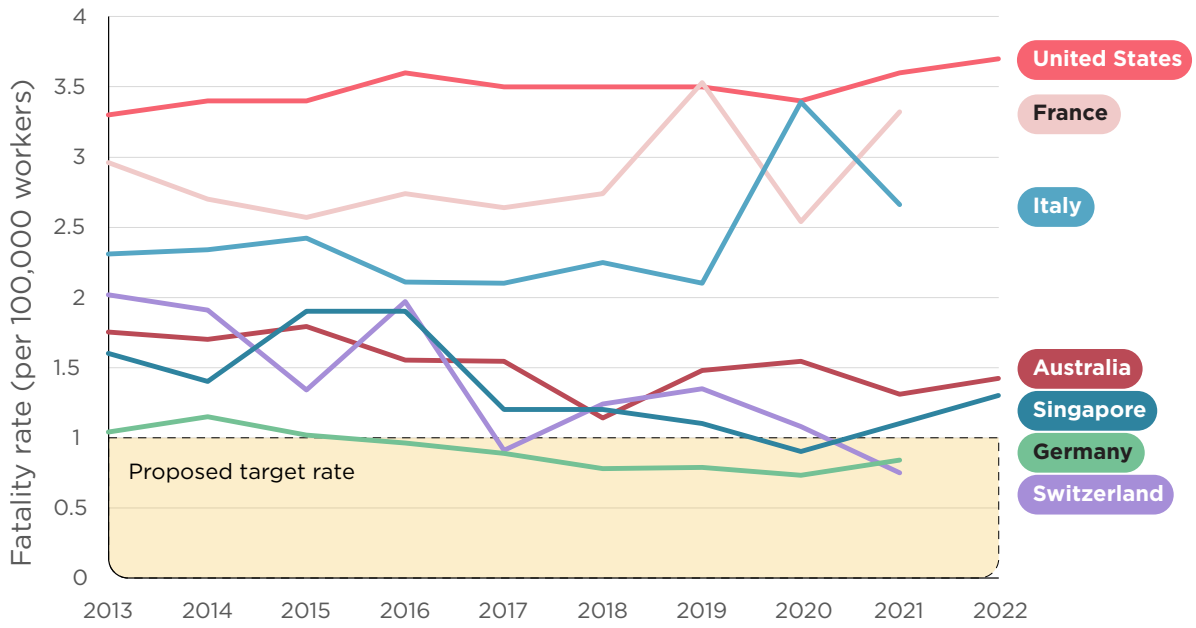
A reduction in the number of worker fatalities caused by traumatic injuries of at least 30%

Each year, there are just under 200 workers who are tragically killed as a result of traumatic injuries in Australia.

Australia has a strong comparative position in the international context for the occurrence of injury fatalities, however more work needs to be done to achieve the ambition of safe and healthy work for all and bring the fatality rate in line with the best performing countries.

The following chart provides a comparison of Australia's position relative to other countries with comparable economies. The Australian work-related injury fatality rate is higher than that of Singapore, Germany and Switzerland, but lower than other countries.

Figure 1 International comparison of work-related injury fatality rates (per 100,000 workers)



Sources: Safe Work Australia (Australia), https://data.safeworkaustralia.gov.au/interactive-data/topic/work-related-fatalities (Worker fatalities); Eurostat (France, Italy, Switzerland and Finland), https://ec.europa.eu/eurostat/web/products-datasets/-/hsw_n2_02 (Fatal accidents at work); Ministry of Manpower (Singapore), https://www.mom.gov.sg/-/media/mom/documents/safety-health/reports-stats/wsh-national-statistics/wsh-national-stats-2022.pd (Workplace fatal injuries); U.S. Bureau of Labour Statistics (United States), https://www.bls.gov/opub/ted/2023/fatal-work-injuries-up-in-2022.htm (Fatal work injuries).

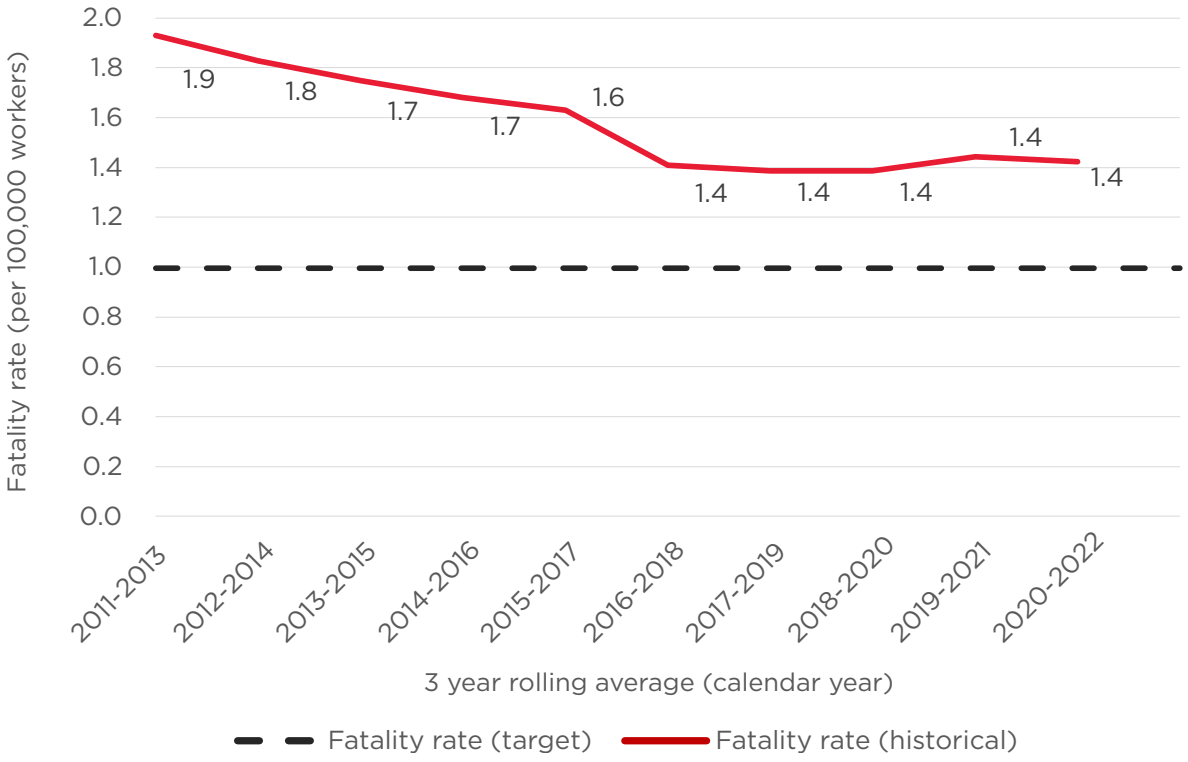
Why this target is important

Work-related fatalities have a devastating impact on workers, their families and the community. Over the long term, Safe Work Australia and stakeholders in the WHS system have been working to drive down the incidence of traumatic injury fatalities. Through the *Australian Work Health and Safety Strategy 2012-2022*, a continuation of long term decreases in traumatic injury fatalities was observed until this trend stalled in 2017. Despite the achievement of the target reduction of a decrease in work-related fatalities of 30% under the previous ten-year WHS strategy, renewed action and commitment to a further ambitious target is of great importance. Australians cannot be complacent in the face of the tragic loss of life that continues to occur regularly in workplaces – on average, between three and four workers are killed each week from traumatic injuries.

Currently, the latest data from Safe Work Australia's Traumatic injury fatalities dataset up to and including 2022 shows that the fatality rate (the three-year average number of fatalities per 100,000 workers) in Australia is 1.4, the baseline for this target; this equates to an average of 188 deaths each year due to traumatic injuries.

Decreasing the worker fatality rate by a further 30% (to 1.0 death per 100,000 workers) will bring Australia in line with the best performing countries internationally, and to a historically low level locally. It would also be in line with the rate of decrease that was experienced between 2011 and 2017 (see figure 2, including the target level for the Strategy and historical ten-year trend).

Figure 2 Australia's worker traumatic injury fatality rate between 2011 to 2022 (3 year rolling average), and target level by 2033



Source: Safe Work Australia, Traumatic injury fatalities data (2022)

Target 1

Focus areas for action

Data from the International Labour Organisation shows that Australia has relatively higher rates of fatalities in Agriculture, forestry and fishing activities (ISIC) and Transportation and storage activities (ISIC) compared to other countries. This may partly reflect differences in the WHS environment and industry composition of each country.

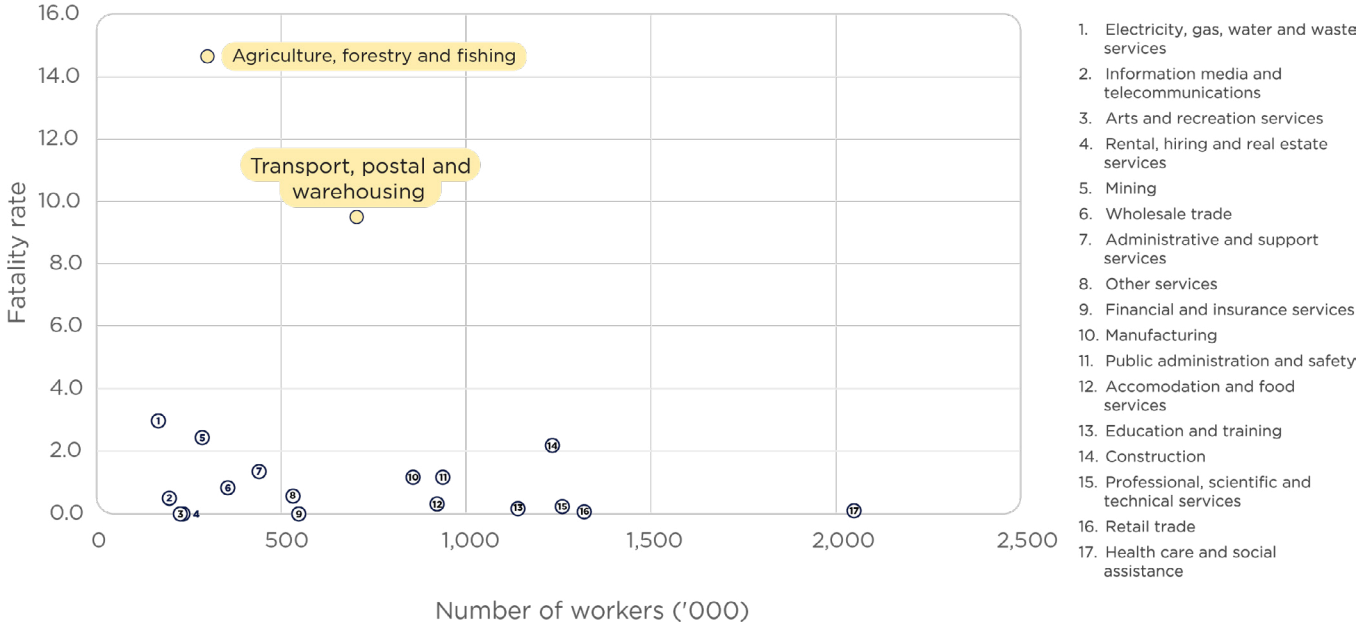
For example, Australia has a proportionally larger agricultural industry in terms of employment numbers, and a vastly greater road transport network than many countries, which may contribute to higher fatality rates for these industries. However, it might also suggest that these are the areas where the most unsafe work practices are occurring.

Figure 3 shows the fatality rates and employment levels for each of the 19 broad industries, further highlighting these two industries as areas where a reduction in the fatality rate will have the greatest impact in driving progress towards this target in the Strategy.

In 2022, the Transport, postal and warehousing industry accounted for the highest number of fatalities (67 fatalities) and had the second highest rate of fatalities (9.5 fatalities per 100,000 workers) compared to other industries, despite accounting for only 5.1% of employed people in Australia's labour market.

Similarly to the Transport, postal and warehousing industry statistics highlighted above, the Agriculture, forestry and fishing industry accounted for the highest fatality rate (14.7 fatalities per 100,000 workers) and the second highest number of fatalities (44 fatalities) compared to other industries, despite accounting for only 2.2% of employed people.

Figure 3 Fatality rates, by industry of employment (2022)



Source: Safe Work Australia, Traumatic injury fatalities data (2022); ABS Labour Force, Detailed, November Quarter 2023, Seasonally adjusted estimates.

These industries also have a low share of female employment – 23.0% in the Transport, postal and warehousing industry, and 33.0% in the Agriculture, forestry and fishing industry[15]. This goes some way to explaining the stark discrepancy between the male fatality rate of 2.5 per 100,000 workers and the female fatality rate of 0.2 per 100,000 workers. Men in Australia are more than 12 times more likely to die of work-related traumatic injuries than women.

Research exploring this dynamic has highlighted how gender may influence workers' identities, perceptions of risk, and how work is completed at the workplace[16]. However, there is little evidence of progress in addressing this challenge. In Australia, the incidence of male traumatic injury fatalities has consistently been significantly higher than that for females. In the latest year of available data (2022), 181 male workers tragically lost their lives in the course of their work, compared to 14 female workers.

Further, the ten year breakdown of male and female worker fatalities is similar when explored by mechanism of incident, with the most common mechanisms being vehicle incidents, being hit by moving objects and falls from a height. The main differences, however, are that female workers are much more likely to be killed from 'Being assaulted by a person or persons' at work (8%, compared to 1% for men), whilst male workers are more likely to be hit by falling objects (10%, compared to 5% for women).

[15] Jobs and Skills Australia, Labour market insights, Industries.
[16] Stergiou-Kita, M. et al (2015), Danger zone: *Men, masculinity and occupational health and safety in high risk occupations,* Journal of Safety Science 80: 213–220. doi:10.1016/j.ssci.2015.07.029

Target 1

Transport, postal & warehousing industry

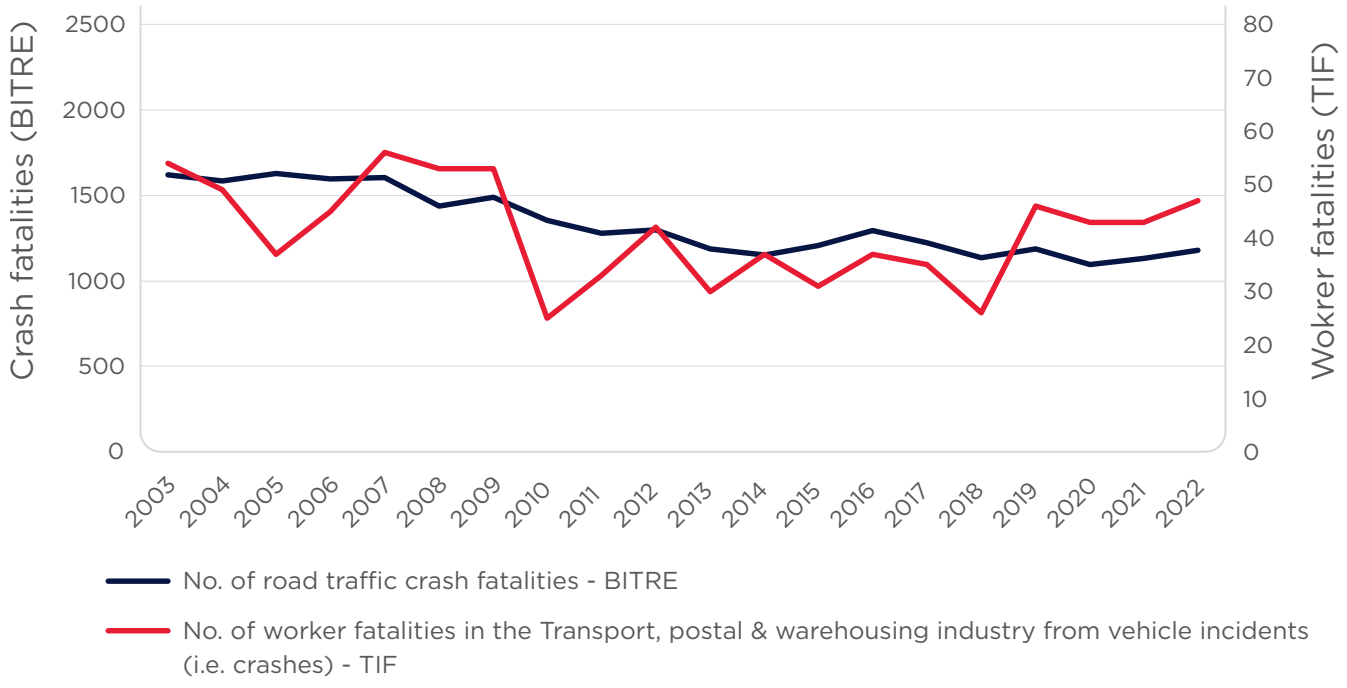
In 2022, Australia's road fatality rate was 4.54 per 100,000 people in the population, which ranked 18th out of 31 assessed OECD nations, more than double the safest countries Norway (2.14) and Sweden (2.17)[17].

The economy's reliance on the Road transport sector is expected to continue over the long term. Road freight is projected to grow by 77% between 2020 and 2050, with an increase in trucks, drivers, and distances travelled on Australian roads, however this reflects a slower rate of growth compared to past trends[18].

Over recent decades, there have been significant reductions in road fatalities from actions taken to make roads, vehicles and road use safer. Under the *National Road Safety Strategy 2001-2010*[19], Australia experienced a 23% reduction in the annual rate of road fatalities, and through the *National Road Safety Strategy 2011-2020*, Australia experienced a further 22% reduction[20]. The current *National Road Safety Strategy 2021-2030* is aiming to reduce the annual number of road crash fatalities by 50%.

In 2022, over half (35 fatalities; 52%) of traumatic injury fatalities in the Transport, postal and warehousing industry involved a heavy vehicle and occurred on a public road (i.e. not due to a vehicle incident). By contrast, around 16% of all road crash deaths involved a heavy vehicle (that is, involving a bus or truck).

Figure 4 Fatality trend comparison – number of road fatalities compared to worker fatalities due to vehicle incidents in the Transport, postal & warehousing industry, 2003 to 2022



[17] Bureau of Infrastructure and Transport Research Economics (BITRE), 2023, International road safety comparisons 2022 BITRE, Canberra ACT
[18] Department of Infrastructure, Transport, Regional Development, Communications and the Arts, Navigating Australia's Freight Future, https://datahub.freightaustralia.gov.au/updates-insights/insights/navigating-australias-freight-future
[19] Australian Transport Council (2011), National Road Safety Strategy 2011-2020 https://www.roadsafety.gov.au/sites/default/files/2019-11/nrss_2011_2020.pdf
[20] National Road Safety Strategy (2021), National Road Safety Strategy 2021-30, https://www.roadsafety.gov.au/sites/default/files/documents/National-Road-Safety-Strategy-2021-30.pdf

Leading causes of traumatic injury fatalities

The most common mechanism of incident for worker fatalities over the past 10 years (2013 to 2022) was 'vehicle incidents' (38% of all traumatic injury fatalities). This was followed by 'Being hit by moving objects' (13%), 'Falls from a height' (12%) and 'Being hit by falling objects' (10%). 'Vehicle incidents' have been the most common mechanism of incident by a clear margin over the long term.

The majority of 'Vehicle incidents' were in the Transport, postal & warehousing industry (53%). This was followed by the Agriculture, forestry & fishing industry (18%). In the Transport, postal & warehousing, workers were fatally injured more often in incidents involving heavy vehicles such as a truck or bus compared to the Agriculture, forestry & fishing industry, where fatal injuries often involved incidents in aircraft or other vehicles such as quad bikes and side-by-side vehicles.

'Being hit by moving objects' was the second highest mechanism of worker fatalities – with 3 in 4 worker fatalities caused by 'being hit by moving objects' involved vehicles, including road vehicles, mobile plant and self-propelled plant. The most common industries where workers were fatally injured due to 'being hit by moving objects' were Agriculture, forestry & fishing (26%), Transport, postal and warehousing (17%), and Construction (16%).

'Falls from a height' was the third highest mechanism of worker fatalities. 'Falls from a height' was most common in the Construction industry (39%), followed by Agriculture, forestry and fishing (16%). Of particular note, the most common breakdown agencies, or circumstances leading to the incident occurring, were buildings (45 workers–primarily in the Construction industry), followed by ladders (29 workers – primarily in the Construction industry), horses (21 workers – primarily in the Arts & recreation services industry) and openings in floors/walls/ceilings (15 workers – primarily in the Construction industry).

Addressing the hazards that contribute to these mechanisms of incident, which contribute close to two-thirds of the overall number of worker traumatic injury fatalities, will support a reduction in the fatality rate to be achieved over the course of the Strategy.

There are significantly more worker fatalities resulting from **single vehicle** incidents than **multiple vehicle** incidents.

77% (108)

of worker fatalities that involved vehicles in 2022 stemmed from single vehicle incidents.

Target 2

A reduction in the frequency rate of serious claims resulting in one or more weeks off work of at least 20%

In Australia, health information systems highlight the widespread nature and impact of injuries and illnesses on the general population.

Injuries are the leading cause of death for people aged 1 – 44 years old, and accounted for 8.1% of the burden of disease, around 538,000 hospitalisations, 13,900 deaths and 7.6% of health expenditure in the latest years of available data[21].

In 2023, the five disease groups causing the most burden were cancer, mental health conditions and substance use disorders, musculoskeletal conditions, cardiovascular diseases and neurological conditions[22]. Together these disease groups accounted for around two-thirds (64%) of the total burden of disease in the Australian population.

Collectively, these population statistics underscore the significant health outcomes that injury and disease can have on people of working age, but do not specifically identify the contribution of workplace exposures and the connection to work that can prevent workers from enjoying a long and healthy life. Workers' compensation claims data remains vitally important in enabling a direct assessment of the incidence and types of work-related injuries and illnesses occurring across the Australian workforce every year.

[21] Australian Institute of Health and Welfare (2023), Injury in Australia, https://www.aihw.gov.au/reports/injury/injury-in-australia/contents/introduction
[22] Australian Institute of Health and Welfare, Australian Burden of Disease Study 2023, https://www.aihw.gov.au/reports/burden-of-disease/australian-burden-of-disease-study-2023/contents/summary

Why this target is important

The overall goal of the Strategy is to reduce worker fatalities, injuries and illnesses. This target, focused on a reduction in the frequency rate of serious claims, forms a critical link between traumatic injury fatalities and the experience of serious work-related injury and ill health.

Workers' compensation claims data support detailed insights into work-related injury and disease including worker characteristics and information about the impact on the individuals involved. Compensation claims data is one of the most detailed and direct data sources available to measure WHS outcomes, compare trends over time, and examine differences between different cohorts of workers. This includes being able to quantify the cost and loss of productivity to the workplace of a worker being injured or ill from their work.

The benefits in achieving this target would be significant. Improving work health and safety benefits workers, co-workers, employers, families and support networks, and the community at large. As highlighted in the introduction to this baseline report, on average each year, in the absence of work-related injuries and illnesses, Australia's economy would be $28.6 billion larger, there would be 185,500 additional new jobs each year and wages would rise 1.3%[23].

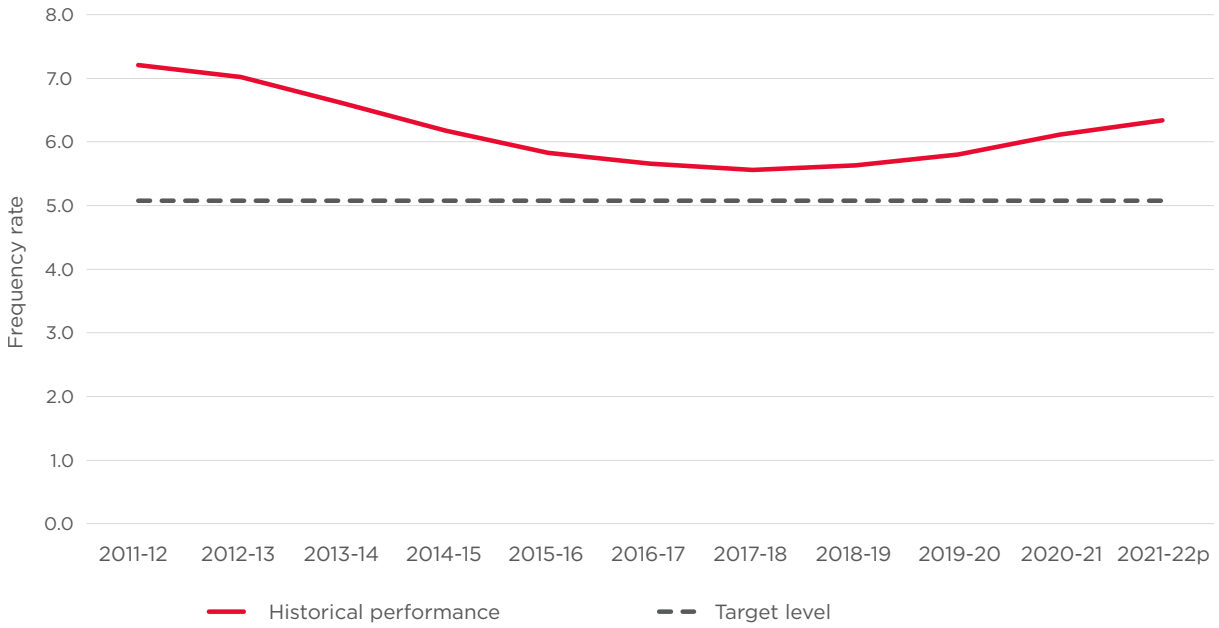
Serious workers' compensation claims are typically more severe in their impact on workers, workplaces and the broader community.

In Safe Work Australia's National dataset for compensation-based statistics, there were an average of 125,420 serious claims per year over the 3-years to 2021-22p ('p' denotes preliminary data as some claims remain open), and the average frequency rate over this period was 6.3 serious claims per million hours worked – the baseline for this target. To meet the target of a 20% reduction over the course of the Strategy, the frequency rate would have to fall to 5.1 serious claims per million hours worked by the year 2031-32p.

Figure 5 shows the ten-year trend in the frequency rate of serious workers' compensation claims, with the dotted line showing the target level for this Strategy. Since 2011-12, the 3-year average frequency rate of serious workers' compensation claims has decreased overall, reaching a low of 5.6 in 2017-18, however in recent years there have been steady increases to the current frequency rate of 6.3 in 2021-22p.

This target is achievable but challenging. Meeting this target would mean reversing a gradual increase in the frequency rate that has occurred over the past five years and reducing the frequency rate to a historically low level.

Figure 5 Serious claims frequency rate (per million hours worked), 2011-12 to 2021-22p (3 year rolling average), and target level by 2031-32p



Source: Safe Work Australia, National dataset for compensation-based statistics

Note: data is based on 3-year averages. For example, the figures for 2021-22p are based on an average of 2019-20, 2020-21, and 2021-22p.

[23] Safe Work Australia (2022), Safer, healthier, wealthier: the economic value of reducing work-related injuries and illnesses, https://www.safeworkaustralia.gov.au/doc/safer-healthier-wealthier-economic-value-reducing-work-related-injuries-and-illnesses-summary-report

Target 2

Focus areas for action

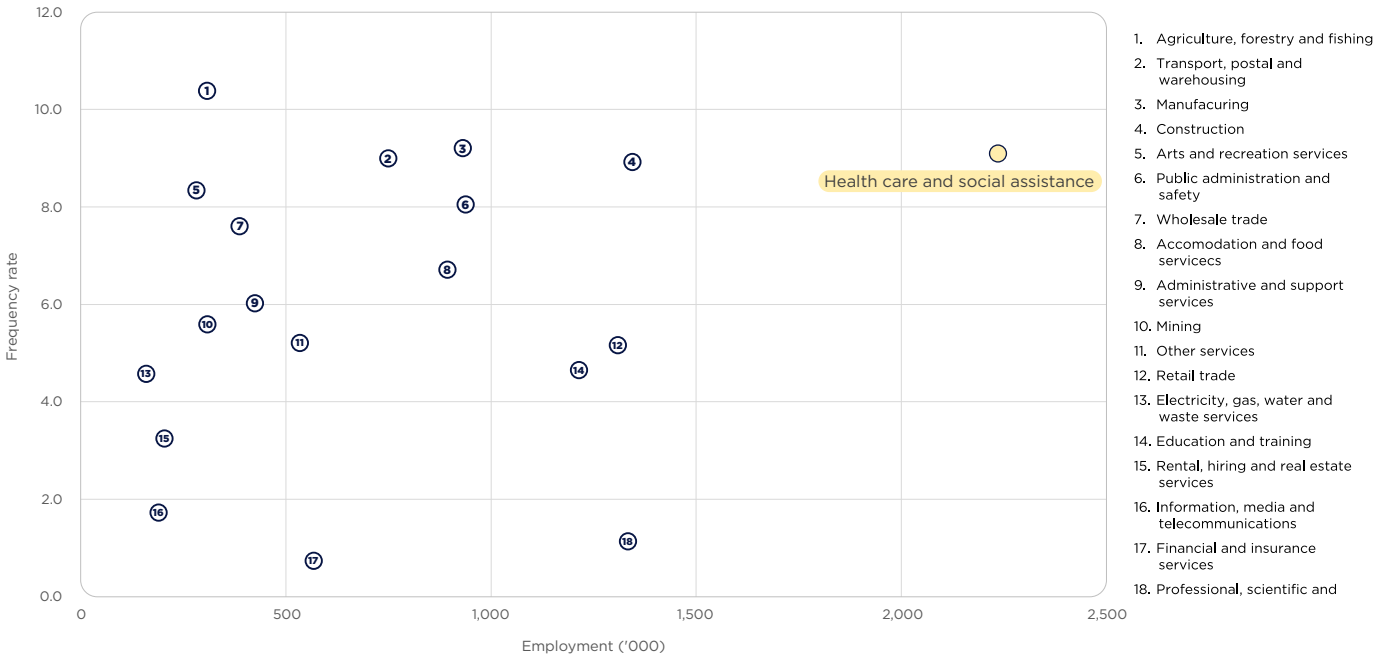
The achievement of this target may be supported by some broader trends in the Australian economy. One study predicted that physical workplace injuries would fall by 11% by 2030 as the use of automated systems and processes, and new technologies including AI, becomes more widespread[24]. However, clearly, additional sustained effort is required if the recent trend of an increasing frequency rate of serious claims is to be reversed.

Workers' compensation claims data help illustrate where work-health inequities exist now. For example, analysis shows that the frequency rate of serious claims has been consistently higher for males than for females, and the nature of this breakdown has not changed over time – there has been a similar pattern to the overall frequency rate, involving a reduction to around 2017-18, and then a gradual increase to 2021-22p.

Further, Figure 6 highlights the industries where a reduction in the serious claims frequency rate will have the greatest impact in driving progress towards this target in the Strategy. The industries with the highest frequency rates in 2021-22p were Agriculture, forestry and fishing (10.4), Manufacturing (9.2), and Health care and social assistance (9.1). These three industries accounted for 33.2% of serious claims in 2021-22p, despite representing only 24.3%[25] of workers.

Some industries employ significantly more people than others, and so reducing the frequency rate in the largest industries is likely to have the greatest impact on the overall frequency rate. For example, Health care and social assistance is by far the largest employing industry in Australia (2.2 million workers) and has a high frequency rate of serious claims of 9.1 (compared with the overall rate of 6.3). Other large employing industries with high frequency rates include Construction (1.3 million workers, frequency rate of 8.9), Manufacturing (931,400 workers, frequency rate of 9.2), and Public administration and safety (937,900 workers, frequency rate of 8.1).

Figure 6 Serious claims frequency rates, by size of industry of employment (2021-22p)



Source: Safe Work Australia, National dataset for compensation-based statistics; Australian Bureau of Statistics, Labour Force, Detailed, November Quarter 2023, seasonally adjusted estimates.

Note: Frequency rate data are based on 3-year averages up to 2021-22p.

[24] AlphaBeta Strategy and Economics (2015), The Automation Advantage.
[25] ABS, Labour Force, Australia, Detailed, November 2023 (seasonally adjusted)

Snapshot

The care and support economy is one of the fastest growing parts of the Australian labour market and the broader economy.

Increasing need for care and support services

Australian Government spending in these sectors is projected to rise from around $60bn in 2021-22 to more than $110 billion by 2026-27[26] and the two jobs projected to see the largest increases in employment over the next ten years are Aged and disabled carers and Registered nurses, with employment in both expected to grow by more than 80,000 workers[27].

Safe Work Australia's claims data shows that the care and support economy had a serious claims frequency rate more than twice the average across all industries, and this rate has been increasing at a faster pace relative to other industries in recent years.

These challenges have workforce impacts beyond health and safety. Research by the Behavioural Economics Team of the Australian Government found that 73% of National Disability Insurance Scheme (NDIS) workers reported their health and safety is at risk at least some of the time, and consequently that this risk to their health and safety was one of the main reasons these workers intended to leave their job[28].

Considering that the care and support economy is highly gender segregated, with women comprising the vast majority of this workforce, safer jobs in this sector may enable improvements to women's economic equality.

[26] Prime Minister and Cabinet (2023), Draft national strategy for the care and support economy, https://www.pmc.gov.au/resources/draft-national-strategy-care-and-support-economy
[27] Jobs and Skills Australia, Employment projections to 2033, https://www.jobsandskills.gov.au/data/employment-projections
[28] BETA (2023), *What's not working? Understanding and improving retention in the NDIS workforce*, https://behaviouraleconomics.pmc.gov.au/projects/whats-not-working-understanding-and-improving-retention-ndis-workforce

Similarly, at an occupational level, serious compensation claims concentrate in areas of higher risk work. Labourers, Community and personal service workers, Technicians and trades workers, and Machinery operators and drivers together accounted for around three quarters (75.7%) of serious claims in 2021-22p, despite representing only 39.8%[29] of workers.

According to preliminary modelling prepared for *The Clean Energy Generation: Workforce needs for a Net Zero Economy* (2023), Jobs and Skills Australia's workforce capacity study, the clean energy supply workforce will likely need to grow from approximately 53,000 workers today to 84,000 by 2050. This employment growth will be concentrated in key occupations from these groups, such as Electricians, Metal fitters and machinists, and Plant operators–increasing the reliance on these forms of higher-risk work to deliver the infrastructure and capabilities needed to achieve Australia's legislated greenhouse gas emission reduction targets.

In addition, for Community and personal service workers, there have been significant increases in the serious claims frequency rate across a range of occupations including Prison officers, Nursing support and personal care workers, Police, and Aged and disabled carers. This is of particular cause for concern because the number of Community and personal service workers has doubled in size over the last 20 years, increasing by 795,400 (or 99.7%) and outpacing the employment growth observed across all occupations over the same period[30]. Looking forward, this trend is set to continue, with employment for Community and personal service workers projected to have the third largest increase of the eight main occupational groups over the ten years to 2033[31].

Types of work-related injuries and illnesses

Over the 10 years to 2021-22p, the proportion of serious claims accounted for by Diseases and conditions has increased by 6 percentage points, to account for 31% of all serious claims.

The two biggest factors driving the increase in the share of claims accounted for by Diseases and conditions are COVID-19 and Mental health conditions. By contrast, over the same period, serious claims for Digestive system diseases have fallen by 1,100 (or 36%), Diseases of the muscle, tendon and related tissue have fallen by 210 (4%), and Nervous system and sense organ diseases have fallen by 150 (or 10%).

Figure 7 below shows the most common nature of injuries and illnesses for which serious claims are made (based on a 3-year average to 2021-22p). By far the most common injury or illness type is 'Traumatic joint/ligament and muscle/tendon injury', which accounted for 39% of all serious claims in the three years to 2021-22p. The second most common type of injury or illness is 'Musculoskeletal and connective tissue diseases' (15%), followed by 'Wounds, lacerations, amputations and internal organ damage' (15%), 'Fractures' (11%), and 'Mental health conditions' (9%).

- Together, these 5 types of claims account for 89% of all serious claims.
- The mechanisms[32] 'Body stressing' and 'Falls, trips and slips of a person' together caused the nature of injury or illness for 54.6% of all serious claims.

Traumatic joint/ligament and muscle/tendon injuries are usually caused by an acute stressing event. These injuries have been the most common type of claim for many years and include:

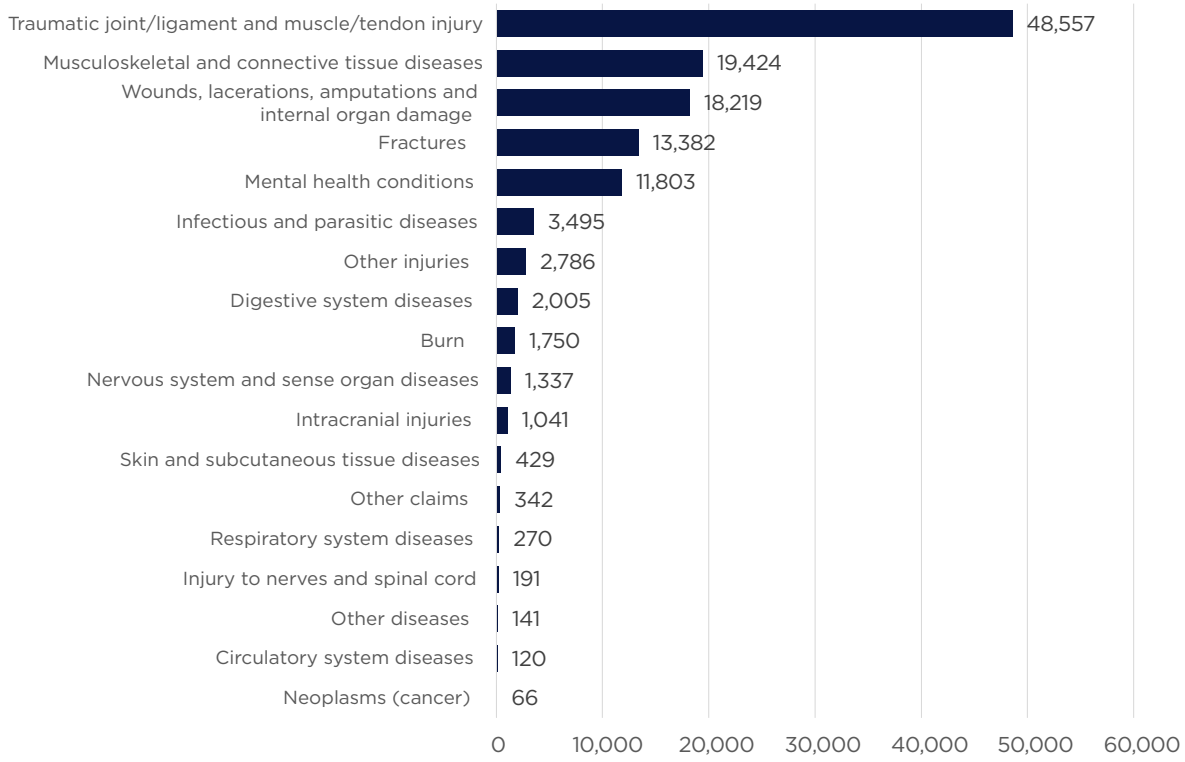
- Trauma to joints and ligaments (comprising 35% of these claims)
- Trauma to muscles and tendons (39%)
- Residual soft tissue disorders due to trauma or unknown mechanisms (26%)

Over the past 10 years, the number and rate of these claims has fallen, although the decline has flattened and then increased slightly from 2019-20 to 2021-22p.

These types of injuries occur across a wide range of bodily locations, including the back (25%), shoulder (17%), knee (17%) and ankle (10%).

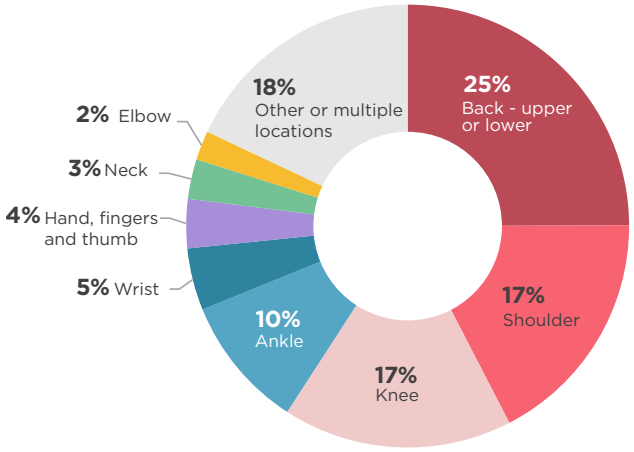
[29] ABS, Labour Force, Australia, Detailed, November 2023 (4-quarter average)
[30] Jobs and Skills Australia, *Labour Market Update* (December 2023), https://www.jobsandskills.gov.au/publications/labour-market-update-december-2023
[31] Jobs and Skills Australia, *Employment projections*, https://www.jobsandskills.gov.au/data/employment-projections
[32] The mechanism identifies the overall action, exposure or event that best describes the circumstances that resulted in the most serious injury or disease.

Figure 7 Number of serious claims by Nature of the injury/illness (three year average to 2021-22p)



Source: Safe Work Australia, National dataset for compensation-based statistics

Figure 8 Bodily location of Traumatic joint/ligament and muscle/tendon injuries (three year average to 2021-22p)



Source: Safe Work Australia, National dataset for compensation-based statistics

Nearly two thirds of claims for Traumatic joint/ligament and muscle/tendon injuries come from workers in three occupation groups:

- Labourers account for 26% of these claims, but make up only 9% of the workforce[33], meaning these types of claims are highly overrepresented amongst Labourers.
- Community and personal service workers account for 22% of these claims, despite only comprising 11% of the workforce.
- Technician and trades workers account for 15% of these claims – on par with the proportion they comprise of the workforce (14%).

[33] ABS, Labour Force, Australia, Detailed, November quarter 2023 (4-quarter average)

Target 2

Snapshot

The ‘gig economy’, or digital platform work, has introduced new forms of work to the Australian economy, and according to one study, this sector grew 9-fold between 2015 and 2019 to capture $6.3bn in consumer spend[34].

Digital platform work and multiple job holding

Digital platform workers and independent contractors are not typically covered by workers’ compensation schemes in Australia.

The Digital Platform Work in Australia – Prevalence, Nature and Impact survey[35] found that, in 2019, workers from all ages, education and skill types accessed work via digital platforms, though young workers, students and migrant workers were more likely to undertake this form of work.

More recently, the ABS digital platform work and workers survey[36] reported that 1% of the employed population reported undertaking digital platform work in 2022-2023. Of these workers, the majority were male (66% – a much higher proportion than the total employed population (52%)), and the most common tasks undertaken included food delivery (35%) and personal transport (27%).

The ABS survey data also shows that 53% of digital platform workers undertook this type of work in addition to their main job. At time of writing, there were 970,700 multiple job-holders (6.7% of employed people) in Australia, a historic high level for this figure[37], and multiple job-holders on average usually worked 30.3 hours in their main job and 9.1 hours in their secondary job(s), whilst single job-holders usually worked 35.1 hours per week. Longer working hours can lead to fatigue or burnout, which is also associated with an increased risk of physical injury or onset of disease[38].

Notably, the Australian Council of Trade Unions Work shouldn’t hurt survey 2023 found that ‘insecure workers’[39] were significantly more likely to report experiencing work-related physical injuries than secure workers (11%, compared to 7% respectively).

[34] Actuaries Institute (2020), *The Rise of the Gig Economy and its Impact on the Australian Workforce*, https://actuaries.asn.au/Library/Miscellaneous/2020/GPGIGECONOMYWEB.pdf
[35] Conducted as part of the Inquiry into the Victorian On-demand Workforce - report (2020), https://engage.vic.gov.au/inquiry-on-demand-workforce
[36] The scope of the ABS survey covers ‘usual and temporary residents’, planning to be in Australia for 12 months or longer. This may under-report recent migrants to Australia or those on short-term visas participating in the gig economy.
[37] Australian Bureau of Statistics, Labour Account, December 2023
[38] Safe Work Australia, https://www.safeworkaustralia.gov.au/safety-topic/hazards/fatigue/overview
[39] Australian Council of Trade Unions (2024), *Work shouldn’t hurt: A survey on the state of work health and safety in Australia 2023*; for this study, ‘insecure work’ was defined as fixed-term contractors (including full-time and part-time), independent contractors, casual workers, and gig workers.

Mental health conditions account for an increasing proportion of work-related injuries and serious workers' compensation claims[40,41] and have garnered significant attention over recent years as awareness of their impact on individuals and workplaces has grown.

In 2021-22p, mental health conditions accounted for 9% (11,700) of all serious claims and 7% of all work-related injuries and illnesses. This represented a 36.9% increase in claims since 2017-18, compared to an increase of 18.3% for all serious claims over the period[40]. Further, the median compensation paid for mental health claims in 2020-21 was $58,615, almost four times the median compensation paid across all claims ($15,743).

While it is possible that destigmatisation and increased awareness of mental health conditions may have contributed to the rise in workers' compensation claims, the prevalence of workplace psychosocial hazards remains significant, with over 69% of Australian Workers' Union (AWU) members reporting experiencing workplace psychosocial hazards in the recent AWU Head First survey[42].

Building the capability of persons conducting a business or undertaking (PCBUs) is critical to ensuring improved understanding and management of psychosocial risks in all Australian workplaces. From a PCBU perspective, members of the Australian Chamber of Commerce and Industry (ACCI) reported in a survey that understanding of the term 'psychosocial risk' remains low and significant effort is needed to increase employers' understanding of this term, as well as assist them to implement systems to identify and manage psychosocial risks.

The survey also found that generally businesses are still unclear on the differences between managing psychosocial risks and more general mental health and wellbeing management.[43]

When examining trends over time in the data, it is important to note that there are two effects that can complicate interpretation:

- We may observe an improvement in work-related mental health outcomes (e.g. a decrease in mental health workers' compensation claims) as a result of PCBUs better managing psychosocial hazards, or
- We may observe more poor work-related mental health outcomes as a result of increased reporting and worker awareness of psychosocial risks[44], and stigma decreases around discussing adverse events and outcomes[45].

Additionally, PCBUs' awareness of psychosocial hazards does not necessarily mean the ability to manage psychosocial risks is growing, nor will there necessarily be an improvement in mental health outcomes for workers.

The following table summarises these insights into the type of work-related injury or illness, alongside key workforce characteristics.

Success against this target in the Strategy will require wide-ranging action across diverse working environments and with targeted action for different cohorts of workers to reduce work-related injuries and illnesses.

Table 1 Serious claims by nature of the injury or illness (3 years to 2021-22p)

	% of all serious claims	5-year change in claims	% workers aged 55+	% Female	Top 3 occupations
Traumatic joint/ligament and muscle/tendon injury	39%	+6%	24%	39%	Labourers (26%) Community and personal service workers (22%) Technicians and trades workers (15%)
Wounds, lacerations, amputations and internal organ damage	15%	+18%	18%	25%	Labourers (32%) Technicians and trades workers (29%) Community and personal service workers (13%)
Musculoskeletal and connective tissue diseases	15%	+24%	24%	42%	Labourers (27%) Community and personal service workers (19%) Technicians and trades workers (16%)
Fractures	11%	+23%	26%	34%	Labourers (28%) Technicians and trades workers (20%) Machinery operators and drivers (15%)
Mental health conditions	9%	+67%	24%	57%	Community and personal service workers (33%) Professionals (22%) Labourers (11%)

[40] Australian Bureau of Statistics (2021-22), Work-related injuries, ABS Website, accessed 17 April 2024.
[41] Safe Work Australia, 2024, *Psychological health and safety in the workplace*, data report.
[42] Mental health issues in the workplace – October 2023 (Australian Workers' Union, Head First)
[43] Australian Chamber of Commerce and Industry (2023), WHS Trends Report 2022, https://www.australianchamber.com.au/wp-content/uploads/2022/10/FINAL-WHS-Trends-Report-2022-1.pdf
[44] Indeed, there has been a statistically significant increase in workers reporting work-related mental health injuries in the latest Australian Council of Trade Unions *Work shouldn't hurt survey* between 2022 and 2023.
[45] The Mental Health Council of Australia estimates that 69% of workers are uncomfortable disclosing their mental health concerns or issues to their employer, and 35% say they wouldn't disclose it at all for fear of discrimination or misunderstanding.

Target 3

A reduction in the frequency rate of permanent impairment of at least 15%

Long-term health and chronic conditions are highly prevalent in the Australian population, with eight in ten (81.4%) people indicating they had at least one long-term health condition and one in two (49.9%) people indicating they had at least one chronic condition[46] in 2022.

Whilst these figures do not currently enable the workplace contributions and exposures to these conditions to be separately identified, one recent study[47] that explores this inter-relationship found that 38% of its sample of working aged Australians were managing a chronic illness:

- close to one in five people stated their chronic illness was entirely caused or worsened by their work, and
- more than one in two stated that work partially caused or worsened their health condition.

These statistics highlight the long-term and ongoing impact that health issues can have on Australia's population, as well as the intersection of workplace issues that can cause, or contribute to, their development.

Further, research from Safe Work Australia in 2022 showed that the cost of work-related injury and illness over a ten year period totalled 2.2 million full-time equivalent workers, spanning absenteeism, presenteeism, reduced employment through permanent withdrawal from the labour force, and a significant component of informal care to support an injured worker[48].

These studies illustrate that there are a range of health and labour market impacts from the ongoing effects of work-related injuries and illnesses.

[46] Australian Bureau of Statistics (2023), National Health Survey, https://www.abs.gov.au/statistics/health/health-conditions-and-risks/health-conditions-prevalence/latest-release
[47] Ruppanner, L. et al (2023), State of the Future of Work Report 2023, Work Futures Hallmark Research Initiative, The University of Melbourne.
[48] Safe Work Australia (2022), *Safer, healthier, wealthier: the economic value of reducing work-related injuries and illnesses*, https://www.safeworkaustralia.gov.au/doc/safer-healthier-wealthier-economic-value-reducing-work-related-injuries-and-illnesses-summary-report

Why this target is important

A reduction in the frequency rate of permanent impairment of at least 15% would represent significant progress in reducing the severity of work-related injuries and illnesses in Australia.

Permanent impairment is a workers' compensation benefit in the form of a lump sum which acknowledges that, despite medical treatment, some injuries or diseases sustained at work may not completely heal.

While permanent impairment does not necessarily correlate with injury severity, the data from permanent impairment claims shows it provides a reasonable approximation for analytical purposes and to reflect longer-term, more serious work-related injuries and illnesses.

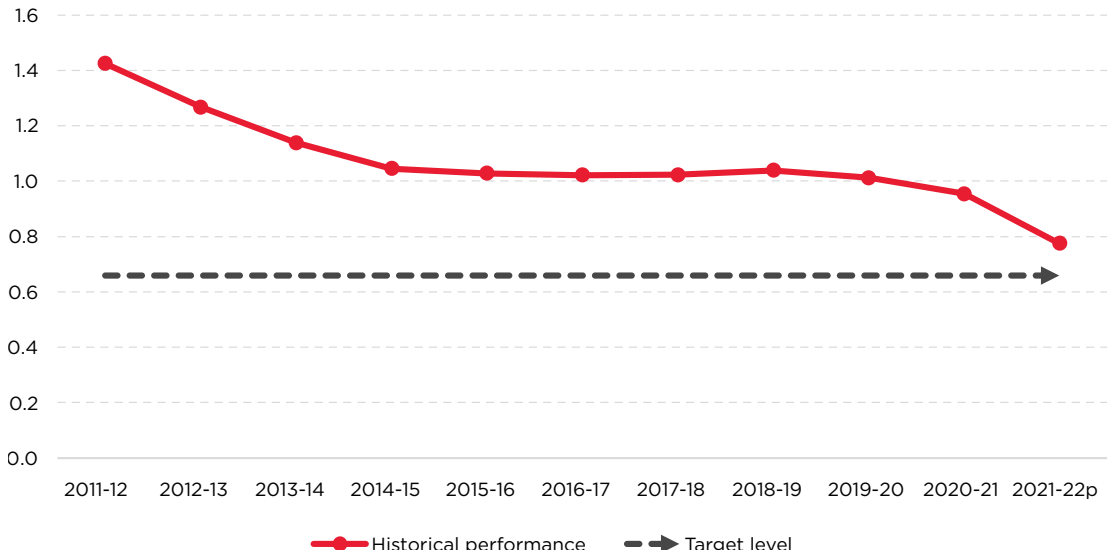
For example, over the most recent five years of available permanent impairment claims data:

- In comparison to workers who made serious workers' compensation claims (which involve one week or more time off work), workers who made permanent impairment claims had:
  - Median compensation costs more than four times greater, and
  - time lost periods twice as long.
- Almost half (46.1%) of workers who made a permanent impairment claim had significant time off work (greater than 16 weeks). By comparison, less than a third of workers who made a serious claim (32.6%) had a significant period of time off work.

Safe Work Australia's National dataset for compensation-based statistics shows there were an average of 15,338 permanent impairment claims per year over the 3-years to 2021-22p, and the average frequency rate over this period was 0.78 permanent impairment claims per million hours worked–the baseline for this target. To meet the target of a 15% reduction over the course of the Strategy, the frequency rate would have to fall to 0.66 permanent impairment claims per million hours worked by the year 2031-32p and reach a historically low level.

Figure 9 shows the ten-year trend in the frequency rate of permanent impairment claims, with the dotted line showing the target level for this Strategy. Over the past ten years, the frequency rate of permanent impairment claims declined by 45.6%, or 0.65 claims per million hours worked. This target is achievable, but would require the resumption of a sustained downward trajectory that was last observed in 2014-15. The fall observed over the most recent year of data (down 18.7% over the year to 2021-22) may be reflective of preliminary[49] results and should be interpreted with caution. Changes to workers' compensation schemes design may also impact these data over time and will require careful assessment of the performance towards the target.

Figure 9 Permanent impairment claims frequency rate (per million hours worked), 2011-12 to 2021-22p (3 year rolling average), and target level by 2031-32p



Source: Safe Work Australia, National dataset for compensation-based statistics

[49] 2021-22 NDS data are preliminary (denoted by 'p'). Revisions in preliminary results are likely over future years as open claims are finalised.

Target 3

Permanent impairment from work-related injuries or illnesses may result in workers leaving the labour market. According to the ABS work-related injuries survey data, of the 497,300 people who had a work-related injury or illness in 2021-22, 14.8% (73,800) ceased working in the job where they experienced their work-related injury or illness. For this group of 73,800, 31.9% said it was as a result of their illness or injury.

Safe Work Australia's National Return to Work Survey data reinforces this point and highlights how work-related injuries and illnesses can have an ongoing impact to workers that forces them to leave the labour market. The vast majority (91.6%) of all workers surveyed in 2021 reported having returned to work at some time since their work-related injury or illness, however the proportion drops by around 10 percentage points when workers are asked whether they were currently working at the time of survey (81.3%). This survey also enables the examination of broader trends in worker health. For example, the 2021 survey (latest available data) continued to see a significant increase in the proportion of unsuccessful return to work attempts at 25.2% (compared to 15.9% in 2016).

These trends will continue to be monitored closely through the Safe Work Australia *National Return to Work Strategy 2020-2030* to ensure that if a worker experiences a significant or ongoing impact from work-related injuries or illnesses, they receive the support they need to return to work effectively.

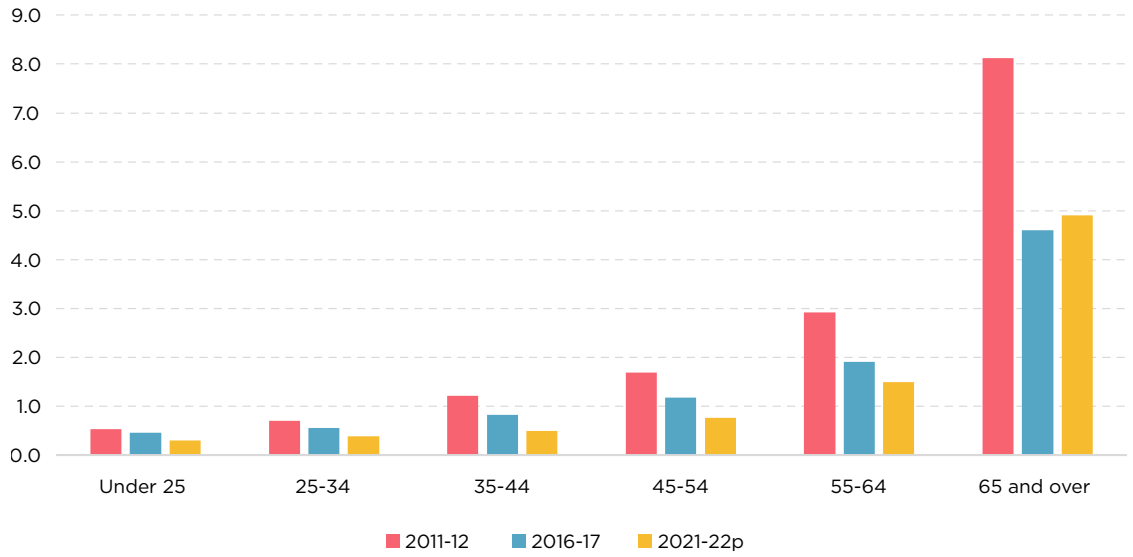
Focus areas for action

Currently, the permanent impairment claims frequency rate is close to three times higher for male workers (1.1 claims per million hours worked in 2021-22p) than for female workers (0.4). Across the most recent ten years of data, men have been at least twice as likely to make a claim for permanent impairment as women.

Again, as has been discussed in this report, gender segregation in the workforce across industries and in occupations is a significant driver of this difference. Over half (51.7%) of permanent impairment claims in 2021-22p were accounted for by the five industries with the highest permanent impairment frequency rate, those being Mining, Manufacturing, Transport, postal and warehousing, Construction, and Agriculture, forestry and fishing. The Agriculture, forestry and fishing industry had the highest female share of employment of these industries, at 33.0%[50].

The permanent impairment claims frequency rate also becomes progressively higher for older cohorts of workers. The current permanent impairment claims frequency rate for workers 65 years and older, 4.9 claims per million hours worked, was more than 3 times higher than the second highest cohort (workers 55-64 years of age, with 1.49 permanent impairment claims per million hours worked). Figure 10 shows this sharp increase clearly.

Figure 10 Permanent impairment frequency rate, by Age group, selected years



Source: Safe Work Australia, National dataset for compensation-based statistics

[50] Jobs and Skills Australia, Labour market insights, Industries, https://www.jobsandskills.gov.au/data/labour-market-insights/industries

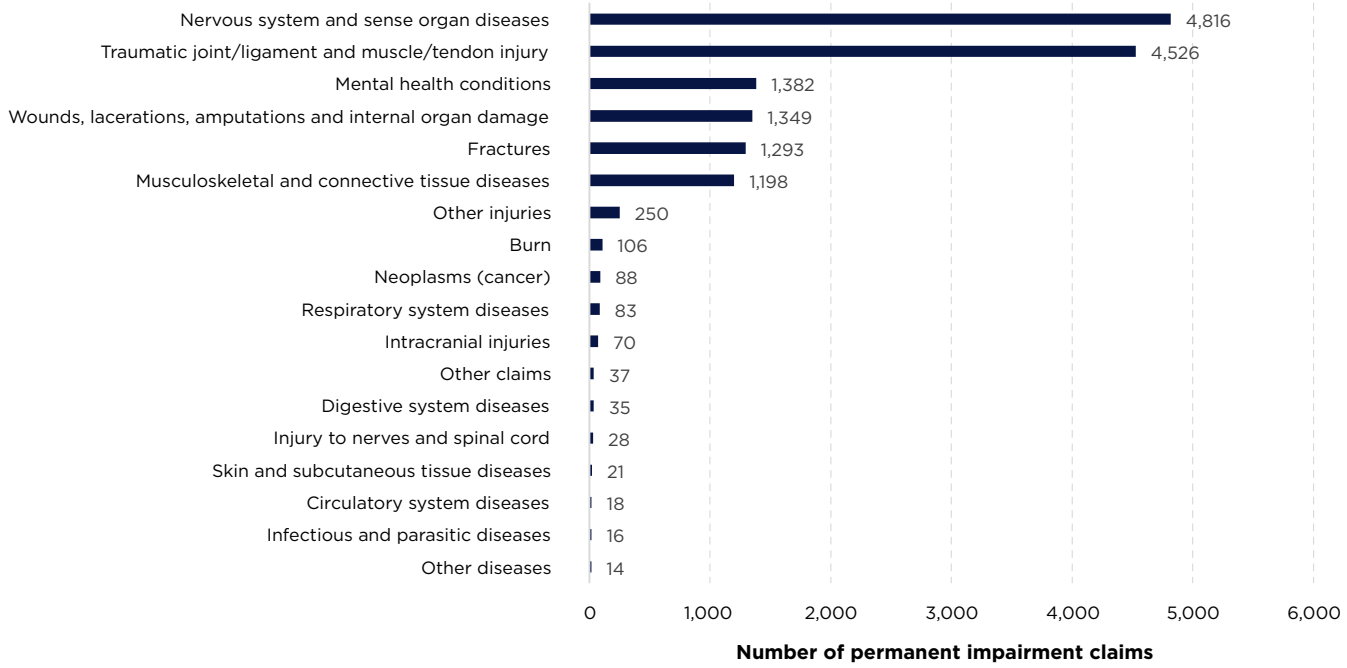
Types of work-related injuries and illnesses

The proportion of permanent impairment claims for work-related diseases and conditions has increased by 11 percentage points over the past ten years, to now account for half (50%) of permanent impairment claims. This increase has far outpaced the corresponding increase in this proportion for serious workers' compensation claims (of 6 percentage points, to 31%).

- The largest contributing factor to this trend has been claims for Deafness.
- While Deafness claims accounted for 0.01% of serious claims in 2021-22p, almost a third (30.3%) of permanent impairment claims resulted from work-related Deafness.

Figure 11 following shows the most common injuries and illnesses for which permanent impairment claims are made, based on a 3-year average to 2021-22p. 'Nervous system and sense organ diseases' and 'Traumatic joint/ligament and muscle/tendon injury' are by far the most common injury or illness types, together accounting for an average of 61% of the permanent impairment claims made in the period.

Figure 11 Average number of permanent impairment claims by Nature of the injury/illness (3 year average to 2021-22p)



Source: Safe Work Australia, National dataset for compensation-based statistics

Target 4

A reduction of the overall incidence of work-related injury or illness among workers to below 3.5%

The latest data from the Australian Bureau of Statistics *Work-related injuries survey* showed that, over 2021-22, there were 497,500 people who experienced a work-related injury or illness.

Whilst this figure reflects a continuation of a decreasing trend observed over twenty years, clearly there are still too many work-related injuries and illnesses among Australian workers.

This trend is reinforced by the Australian Institute of Health and Welfare *Australian burden of disease study* (2018), which shows that the average number of years of healthy life lost due to occupational exposures and hazards has also decreased steadily, by 17.5% over the past fifteen years, from 4.2 to 3.5 years.

Improving work-related injury outcomes will clearly also have a positive impact on general health and wellbeing. Work is a core social determinant of health[51]. When interpreting data on the incidence of work-related injury and illness in Australia, recent insights from the latest Household, Income and Labour Dynamics in Australia Survey highlight that, compared with being out of the labour force, employment in and of itself is associated with reduced rates of onset of arthritis or osteoporosis, chronic bronchitis or emphysema, heart disease and depression or anxiety[52].

[51] Wilkinson R.G., Marmot M.G. (editors. 2003), *Social Determinants of Health: The Solid Facts*. 2nd ed. The World Health Organization, Regional Office for Europe, Centre for Urban Health
[52] Wilkins et al (2024), The Household, Income and Labour Dynamics in Australia Survey: Selected Findings from Waves 1 to 21. Melbourne Institute: Applied Economic & Social Research, the University of Melbourne

Why this target is important

Safe Work Australia funds the Australia Bureau of Statistics to conduct the Work-related injuries survey every four years to provide insights into the broad incidence of work-related injury or illness. This is the only source of data available that provides a national incidence rate for work-related injuries and illnesses, taking into account all workers across the labour market and covering all injury types, regardless of their impact or severity.

According to the ABS data, the incidence of work-related injury or illness has been decreasing steadily over time, from 6.4% of people who worked at some point in the previous 12 months in 2005-06 to 3.5% in 2021-22 (latest available data).

The data enable greater understanding of the overall scale of this issue for workers and in workplaces across the country. For example, the ABS data shows that around one-third of workers make a compensation claim when they experience a work-related injury or illness. This means national data on workers' compensation claims reflects only a proportion of the incidents that impact on the health and safety of workers, despite offering a more detailed snapshot of the types of work-related injury or illness.

Focus areas for action

The target of reducing the overall incidence of work-related injury or illness amongst workers to below 3.5% was set in the Strategy prior to the release of the latest data, which then showed this figure for the 2021-22 period was 3.5%.

However, the ABS advised caution when interpreting the latest data due to the impacts of the COVID-19 pandemic on workplaces and working conditions. Hence, the data will continue to be monitored closely over the course of the Strategy to understand where further improvements may be made.

Further, Australia's workforce is changing, with increasing female participation and an ageing demographic profile, alongside structural shifts to services industries and higher-skilled jobs[53]. New technologies have been changing how, where and when people work, enabling safer practices for some types of high-risk work and accelerating Australia's transition to a knowledge-based economy. Indeed, reflecting this dynamic, it has been estimated that up to a third of the activities within 60% of jobs are suitable for automation, but fewer than 10% of occupations could be fully automated[54]. These factors will influence the work-related injuries rate in future years.

[53] National Skills Commission (2021), The state of Australia's skills 2021: now and into the future
[54] Taylor, C. et al, *Australia's automation opportunity: Reigniting productivity and inclusive income growth.* (McKinsey & Company 2019). https://www.mckinsey.com/au/~/media/mckinsey/featured%20insights/future%20of%20organizations/australias%20automation%20opportunity%20reigniting%20productivity%20and%20inclusive%20income%20growth/australia-automation-opportunity-vf.pdf

Target 4

Snapshot

One research study predicts that physical workplace injuries will fall by 11% by 2030 as the use of automated systems and processes, and new technologies including AI, becomes more widespread[55].

Increasing adoption of AI and automation in workplaces

Repetitive or demanding tasks can be replaced by machinery and automated systems to reduce the exposure of workers to risks of physical injury, and machinery can operate in unsafe environments, or for longer periods, than humans.

Technology can be used to identify and manage risks, such as proximity to dangerous equipment or activities, and real-time monitoring of environmental factors that may be harmful to workers[56, 57]. This includes so-called digital twins, which are virtual representations of people, objects or systems that have the potential to increase the robustness of risk identification and assessment[58].

The potential for new technology and automation to improve the quality of jobs has been explored in several research studies, with one predicting that up to 62% of workers will be more satisfied in their jobs by 2030 due to the phasing out of some repetitive, low-skilled positions[59], and another showing the adoption of AI increased the enjoyment at work for 3 in 5 workers[60].

However, the introduction of new technologies and processes may increase workplace stress as workers spend more time on higher functioning tasks[61], or there may be a decrease in interpersonal contact to the detriment of workers' mental health[62].

Another key consideration in a changing work environment is the high cost of adopting new technologies into workplaces, which will be an issue guiding the pace of change in this area and may lead to new or deeper work-health inequities.

[55] AlphaBeta Strategy and Economics (2015), The Automation Advantage.
[56] European Agency for Safety and Health at Work. Discussion paper - The future of work: robotics. In.https://osha.europa.eu/en/tools-and-publications/ publications/future-work-robotics/view
[57] West, D (2016), What if robots took the jobs? The impact of emerging technologies on employment and public policy. In: Brookings Institute - Center for Technology Innovation, https://www.brookings.edu/ wp-content/uploads/2016/06/robotwork.pdf
[58] Zio and Miqueles (2024), *Digital twins in Safety Analysis, Risk Assessment and Emergency Management*, Journal of Reliability Engineering and System Safety.
[59] AlphaBeta Strategy x Economics (2015), The Automation Advantage.
[60] Lane, M., M. Williams and S. Broecke (2023), "The impact of AI on the workplace: Main findings from the OECD AI surveys of employers and workers", OECD Social, Employment and Migration Working Papers, No. 288, OECD Publishing, Paris, https://doi.org/10.1787/ea0a0fe1-en
[61] Horton J, Cameron A, Devaraj D, Hanson RT, Hajkowicz SA (2018) Workplace Safety Futures: The impact of emerging technologies and platforms on work health and safety and workers' compensation over the next 20 years. CSIRO, Canberra.
[62] OECD (2024), *Using AI in the workplace: opportunities, risks and policy responses*, https://www.oecd.org/publications/using-ai-in-the-workplace-73d417f9-en.htm

The overall incidence of work-related injury or illness varies greatly when broken down by key labour market and personal characteristics. Work-related injury rates were higher for men (3.9%) than women (3.1%), and young workers aged 20-24 and older workers aged 55-59. These patterns are similar to those seen in workers' compensation claims, however understanding these dynamics is important, particularly when bringing data sources together[63].

According to the AIHW Australian burden of disease study, the majority of the decrease in the average number of years of healthy life lost due to occupational exposures and hazards over the past 15 years is due to decreases in male workers (from 6.8 to 5.2 years), whereas the healthy years lost is the same for female workers (1.8 years) over the period. These figures also highlight the outsize impact of work-related exposures, injuries and illnesses on male workers compared to female workers – the average number of years of healthy life lost is almost three times greater for male than female workers.

The industries with the highest work-related injury rates are generally similar to the industries with the highest frequency rates of serious workers' compensation claims. However, notably, the relative work-related injury rates for the Accommodation and food services industry and the Information, media and telecommunications industry were much higher than the serious claims frequency rate. These industries may exhibit a higher volume of less serious work-related injuries and illnesses compared to other industries. Notably both industries had higher rates of workplace sexual harassment than the national incidence rate[64].

[63] Safe Work Australia has published more detailed analysis of the latest ABS work-related injuries survey data that highlights further key issues and trends: https://www.safeworkaustralia.gov.au/doc/analysis-abs-work-related-injuries-survey-data-2021-22
[64] Australian Human Rights Commission (2022), Time for respect: fifth national survey on sexual harassment in Australian workplaces, https://humanrights.gov.au/time-for-respect-2022

Targets 5 and 6

No new cases of accelerated silicosis by 2033, and a reduction in the frequency rate of work-related respiratory disease by 20%

Increasing cases of silicosis have been a focus for WHS and workers' compensation authorities in Australia, however the diverse nature of workplace exposures to dusts, vapours and fumes has also highlighted the importance of improving the management of occupational risks to lung health more broadly.

Why this target is important

Recent research found that respiratory diseases accounted for the highest proportion of work-related deaths (46%) attributed to hazardous substances including dusts, vapours and fumes in the world[65]; 84% of these were for Chronic Obstructive Pulmonary Disease (COPD)[66].

The rapid re-emergence of silicosis in an accelerated form, particularly among engineered stone workers, has been of significant concern to Safe Work Australia and jurisdictional WHS regulators. The target in this Strategy of no new cases of accelerated silicosis by 2033 played an important role in helping to coalesce national action to ban the manufacture, supply, processing and installation of engineered stone benchtops, panels and slabs in Australia from 1 July 2024.

While silicosis cases have been reported in workers across a range of industries, a disproportionate number occur in engineered stone workers. For these workers, silicosis is associated with a shorter duration of exposure to silica, faster disease progression and higher mortality. This is due the nature of engineered stone and the dust it produces.

[65] Takala, J. et al (2023), Global-, regional- and country-level estimates of the work-related burden of diseases and accidents in 2019, Scandinavian Journal of Work, Environment and Health,.doi: 10.5271/sjweh.4132
[66] Notably, this is not categorised separately in the Type of Occurrence Classification System used to code workers' compensation claims data in Australia.

In addition to the prohibition on engineered stone, Safe Work Australia is progressing work to ensure workers who may be exposed to crystalline silica are appropriately protected. This includes a range of communication activities, guidance to support workers and PCBUs in managing changes to engineered stone products, and a national framework to ensure anyone working with engineered stone products installed prior to the ban can do so safely.

The other target in this domain, focused on a reduction in the frequency rate of work-related respiratory disease by 20%, reflects the broader action needed to support improved worker health from exposure to (often invisible) airborne contaminants and other irritants.

Accelerated silicosis can develop after exposures of 3 to 10 years to moderate to high levels of silica dust.

It causes severe shortness of breath and may result in complications including respiratory failure and death.

Based on Safe Work Australia's workers' compensation claims data, the baseline frequency rate of claims for work-related respiratory disease is 0.04 per million hours worked (three-year average to 2021-22p). This represents an average of 782 respiratory disease claims per year. To meet the target of a 20% reduction over the course of the Strategy, the frequency rate would have to fall to 0.032 respiratory disease claims per million hours worked by the year 2031-32p.

Target 5

Focus areas for action

A detailed understanding of the extent of accelerated silicosis in workers will not be obtained until more nationally comprehensive data is available. Currently, only New South Wales and Queensland report data for accelerated silicosis from specific state-based registers that were established to inform action.

The *National Occupational Respiratory Disease Registry Act 2023* (Cth) resulted in silicosis being made a notifiable disease. This means that, from May 2024, details of all cases of silicosis diagnosed by physicians must be provided to the National Occupational Respiratory Disease Registry (NORDR), administered by the Commonwealth Department of Health and Aged Care. This development is expected to provide improved availability of data in future years to understand the incidence and trends associated with silicosis.

At this time, silicosis remains the only prescribed notifiable disease for the NORDR, so workers' compensation claims data will continue to be used to study progress against these targets as part of landscape monitoring for accelerated silicosis and work-related respiratory diseases. Physicians may also provide voluntary notification of other occupational respiratory diseases to the NORDR to help identify emerging workplace risks.

The most recent data at time of writing published by the New South Wales and Queensland Dust Diseases Registers have been reproduced in Table 2 to provide a breakdown of the number of silicosis cases recorded, by sub-types.

The number of accelerated silicosis cases in New South Wales has remained at fewer than 5 for the last four reporting periods. In Queensland, there were 7 cases registered in 2019-20, but this number has fallen in each of the following years. However, the high proportion of silicosis not identified by sub-type in Queensland may include cases of accelerated silicosis.

To complement this data, Table 3 shows the number of accepted workers' compensation claims for work-related respiratory diseases in 2021-22p from Safe Work Australia's workers' compensation claims data. Of these claims, around 70% were for non-specific categories. This large proportion may be because an accurate and final diagnosis may not have been made when claims were lodged and accepted, and when more conclusive diagnoses became known, the data in the lodged claims were not updated[67].

Further, the Australian Bureau of Statistics Cause of Death data[68] shows that, of the commonly work-related respiratory diseases, pneumoconiosis due to asbestos and other mineral fibres is responsible for the most deaths each year (128 deaths in 2022). This in part reflects the large number of workers exposed to high levels of asbestos many years earlier.

This data also shows a gradual, but not consecutive, increase each year in the number of deaths from pneumoconiosis due to dust containing silica (to a total of 11 deaths in 2022).

[67] The number of claims in the non-specific, and other, categories has remained relatively stable over the past ten years, reflecting underlying uncertainty in the precision of the available claims data for work-related respiratory diseases.
[68] Australian Bureau of Statistics, 3303.0 Causes of Death, Australia, 2022. The underlying cause of death refers to the disease or injury that initiated the train of morbid events leading directly to death.

Table 2 Silicosis (all forms) notifications by sub-type (NSW and Queensland notifications)

	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	1/7/23 to 30/9/23
NSW Dust Disease Register							
Accelerated				**<5**	<5	**<5**	<5
Acute				**<5**	7	**<5**	<5
Chronic				**44**	45	**59**	22
Not identified				**5**	8	**<5**	<5
Total	9	40	107	57 (7 deaths)	64 (10 deaths)	65 (9 deaths)	25 (2 deaths)
Queensland Dust Disease Register							
Accelerated			7	**1**	1	**0**	
Acute			0	**1**	0	**0**	
Chronic			19	**25**	16	**8**	
Not identified			43	**42**	14	**11**	
Total	192 Legacy (multiple years, prior 1 July 2019)		69	69	31	19	

Notes:

1. Data not available in New South Wales by sub-type for 2017-18 to 2019-20 or in Queensland for 2023
2. Queensland data before 2019-20 has been aggregated over several years and doesn't not include silicosis sub-types.
3. Queensland Dust Disease Register report doesn't include deaths.

Sources: New South Wales Government Silica dashboard, Queensland Health Notifiable dust lung disease register

Table 3 Number of accepted claims for respiratory system diseases in Australia, 2021-22p

Respiratory system diseases	Number of claims
*Other diseases of the respiratory system, not elsewhere classified	209
**Other respiratory conditions due to substances	145
Asthma	53
Asbestosis	32
Silicosis	25
Other diseases of the respiratory system, unspecified	22
Chronic bronchitis, emphysema and allied conditions	9
Pneumoconiosis due to coal dust	np
Pneumoconiosis excluding asbestosis, silicosis and coal workers' pneumoconiosis	np
Legionnaires' disease	np
Total	**504**

*This category covers specified diseases of the respiratory system not able to be classified to another category, e.g. acute bronchitis, allergic rhinitis, common cold, hay fever, inflamed throat, influenza, nodules on throat/vocal chords, pneumonia, and upper respiratory tract infection (URTI).

**This category covers diseases of the respiratory system for which there is insufficient information to code to a specific category (includes unspecified respiratory diseases.

Notes:

1. 'np' data suppressed due to confidentiality restrictions
2. 'p' denotes the data is preliminary and numbers are likely to rise as revisions occur in future years.

Source: Safe Work Australia, National dataset for compensation-based statistics

Target 7 and 8

Action-based targets focused on exposure to harmful substances and psychosocial hazards

The final targets in the Strategy focus on actions that Safe Work Australia Members[69] are taking to increase preventative action in key areas – exposure to harmful substances and psychosocial hazards.

Safe Work Australia Members opted to focus on action being taken to reduce these harms, rather than estimating their prevalence in the first half of the Strategy, given the lack of high quality data and the changing nature of work-related exposures in these areas. New regulatory and preventative strategies are progressively being introduced and assessed in terms of their ability to prevent harm across workplaces.

While Safe Work Australia and its Members are committed to seeking out better quality evidence to measure on-the-ground change directly, these targets present an opportunity to demonstrate ongoing collaboration and innovation in the spirit of the Actions highlighted in the Strategy:

Information and awareness
01

02
National coordination

Data and intelligence gathering
03

04
Health and safety leadership

Compliance and enforcement
05

[69] To learn more about the Members of Safe Work Australia and their role, visit the Safe Work Australia website: https://www.safeworkaustralia.gov.au/about-us/our-members

As a result, the approach for monitoring progress through the Strategy against the activity-based targets is distinct from the discussion of the other quantitative targets in the Strategy explored through this baseline report.

A broader, ongoing series of case studies and more regular, targeted updates of specific actions being taken by Members against the hazard areas of focus will be shared. This is in recognition that these actions may differ significantly between Members, so national consistency in reporting and analysis is not readily possible, and as such, this presents a meaningful opportunity for all Members to showcase the Strategy in action.

Focus on the overall success of the Strategy

The success of the Strategy will not be determined by the achievement of any individual target, but rather by progress towards the overall goal.

Beyond this immediate set of targets and the analysis presented in this baseline report, Safe Work Australia will undertake additional research to understand the drivers of change and how complementary information can build a more nuanced set of insights into the performance of the WHS system at delivering safe and healthy work for all.

Demonstrating this approach, Safe Work Australia has published analysis on *WHS outcomes for apprentices and trainees*[70] and *Psychological health and safety in the workplace*[71] recently to explore the unique issues and challenges being experienced by different cohorts of workers and for particular hazards.

Contributing new insights into WHS issues and trends to grow the evidence base will be an area of focus throughout the ten-year period of the Strategy, so that informed decisions can be made on the actions needed to reduce worker fatalities, injuries and illnesses.

[70] Safe Work Australia (2023), *WHS outcomes for apprentices and trainees,* https://data.safeworkaustralia.gov.au/snapshot/whs-outcomes-apprentices-and-trainees
[71] Safe Work Australia (2024), *Psychological health and safety in the workplace,* https://data.safeworkaustralia.gov.au/report/psychological-health-and-safety-workplace