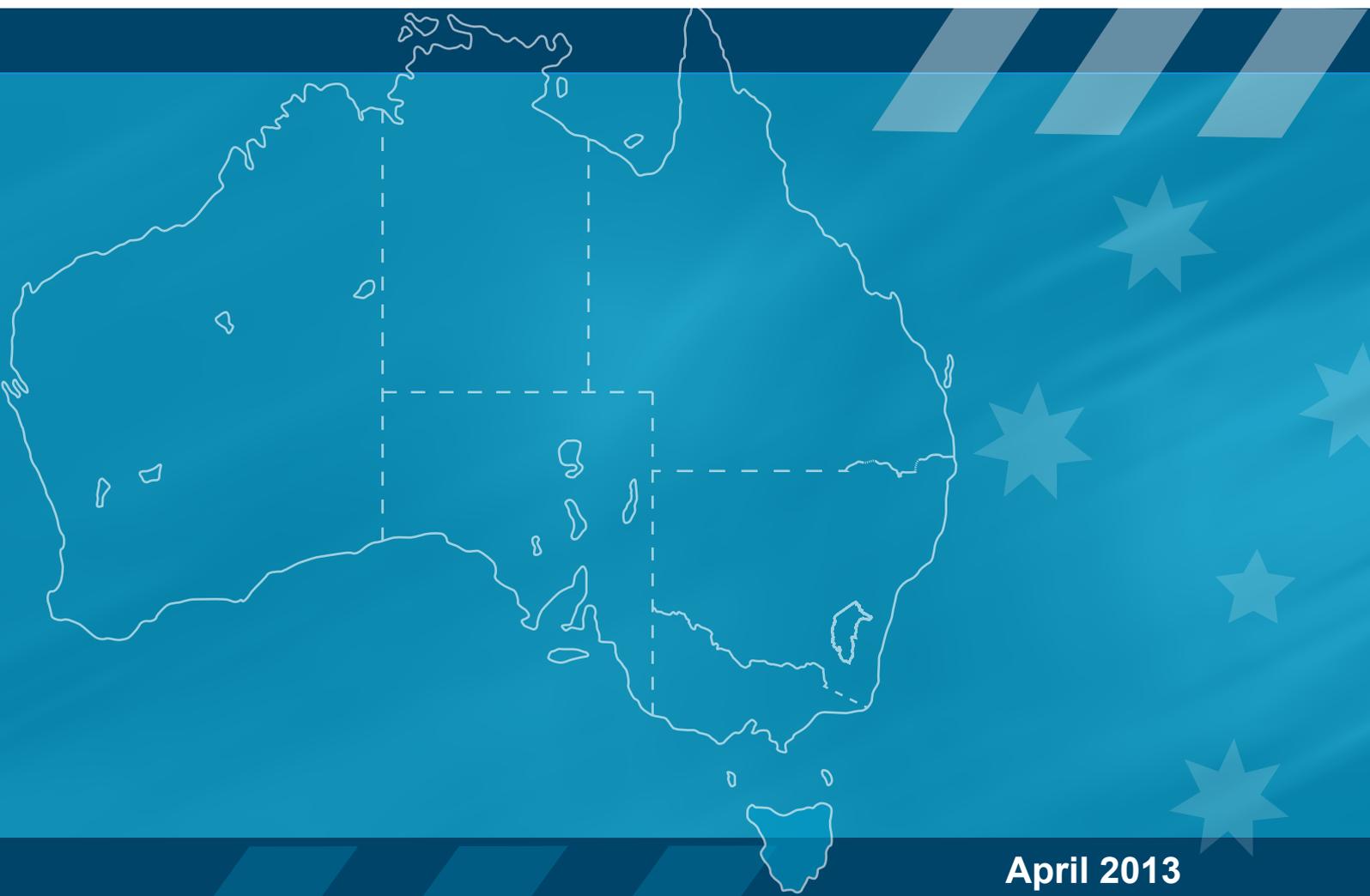


THE INCIDENCE OF ACCEPTED WORKERS' COMPENSATION CLAIMS FOR MENTAL STRESS IN AUSTRALIA



April 2013



safe work australia



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ISBN 978-0-642-78719-4 [Online pdf]

ISBN 978-0-642-78720-0 [Online doc]

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Foreword

This is the first Safe Work Australia report devoted to work-related mental stress in Australia. Mental disorders arising from stress in the workplace have become an increasingly important concern for employees, employers and the general public as a whole. Mental disorders also have an impact on the Australian economy because mental stress claims are the most expensive form of workers' compensation claim as a consequence of the lengthy periods of absence from work that are common with such claims.

This report explores various elements of work-related mental stress. The first chapter describes what work-related mental stress is, its causes, effects and recognised preventive measures. Chapter two analyses the characteristics of employees who have made a workers' claim resulting from mental stress, such as age, sex, occupation and industry of workers claiming compensation.

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Executive summary

This is the first Safe Work Australia report devoted to work-related mental stress. Work-related mental stress has become a major concern in workplaces in Australia because of the impact on individual employees and the costs associated with the long periods away from work that are typical of these claims.

The first chapter in the report describes what work-related mental stress is, what causes it, and its effects on the health and wellbeing of workers. The second chapter shows the incidence of mental stress amongst workers through analysis of workers' compensation claims data.

The data contained in this report represent those workers who are covered by workers' compensation schemes (employees) and who have been successful in receiving compensation. The full extent of mental stress in Australian workplaces (prevalence) is not known but is likely to be greater than indicated by workers' compensation statistics because not all workers with mental stress apply for or receive compensation for their illness. For example the Australian Bureau of Statistics (ABS) *Work-related Injuries Survey 2009–10* showed that 70% of workers who reported they experienced work-related mental stress did not apply for workers' compensation.

Key findings in this report:

- > Mental stress claims are the most expensive form of workers' compensation claims because of the often lengthy periods of absence from work typical of these claims.
- > Mental stress claims are predominantly made by women.
- > Men and women are more likely to make a claim for mental stress as they get older but after they reach 54 years the likelihood that they made a claim decreases.
- > More Professionals made claims for mental stress than other any other occupation with over a third of their claims made for *Work pressure*.
- > There were more mental stress claims made for *Work pressure* than any other sub-category.
- > The hazards that result in mental stress claims vary with worker age. Younger workers are more likely to make claims as a result of *Exposure to workplace or occupational violence*, whereas *Work pressure* is the main cause of mental stress claims for older workers, peaking for those aged 45–49 years.
- > General clerks, School teachers and Police Officers accounted for the majority of claims for *Work pressure*.
- > Women were around three times more likely than men to make a workers' compensation claim due to *Work-related harassment &/or workplace bullying*. Approximately one-third of all claims in this mental stress sub-category were made by workers in the occupational categories of Advanced clerical & service workers and General clerks.
- > For the industries with the highest number/rate of mental stress claims, the majority of claims were for *Work pressure*. This was particularly true in the Education sector. Claims for *Exposure to workplace or occupational violence* were notable in the Retail trade industry, while the Transport & storage and Health & community services industries dominated claims for *Exposure to a traumatic event*.

Introduction

The *Australian Work Health and Safety Strategy 2012–2022* (the Australian Strategy) promotes the vision of healthy, safe and productive working lives (Safe Work Australia 2012a). Mental disorders are a focus for action in the Australian Strategy based on the severity of consequences for workers with poor mental health, the large number of workers estimated to be affected by mental disorders and the existence of known prevention options.

The development of a mental disorder is recognised in the Australian workers' compensation system as a potential outcome of experiencing mental stress in the course of work (Australian Safety and Compensation Council (ASCC) 2008). Mental stress has accounted for an average of 95% of mental disorder claims over the past 10 years.

Work-related mental stress claims are the most expensive form of workers' compensation claim because of the often lengthy periods of absence from work typical of these claims. Besides the burden work-related mental stress places on the health and welfare of employees, the impact on productivity of workplaces and the Australian economy is substantial.

It is difficult to know how many employees experience mental stress at any given time because the workers' compensation data is administrative data collected from accepted workers' compensation claims. It does not include any information on unsuccessful claims, any insight into the number of workers who experience mental stress but choose not to claim workers' compensation or on workers who are not covered by compensation. This means that the workers' compensation data are skewed towards those workers who are more likely to claim based on their occupation, age, industry of employer, and where they have secure employment.

Data sourced from the National Dataset for Compensation-based Statistics (NDS) are used to report on the number, percentage, incidence and frequency of accepted compensation claims arising from mental stress, which is a mechanism of injury or disease coded according to *Type of Occurrence Classification System 3rd Edition Revision 1* (TOOCS3.1). However for the reasons described above workers' compensation data cannot describe the actual prevalence of work-related mental stress, the extent of those working conditions contributing to mental stress or those most vulnerable to its effects.

Academic research carried out in Australia has attempted to explore the prevalence of work-related mental stress in Australia. However at this time research based data collection is unable to match the workers' compensation data in terms of regularity, consistency in factors examined and national coverage of the working population. Despite this academic research suggests that workers' compensation claims data underestimate the size of the problem.

This report aims to explain what mental stress is, what causes it, and how it can affect the health and wellbeing of workers. An analysis of workers' compensation claims data shows the incidence of mental stress by age, sex, occupation and industry. There is also analysis of the incidence, median time lost from work and the median costs for each the sub-categories of mental stress.

1

Work-related mental stress

What is mental stress?

Work-related mental stress has been described as the adverse reaction experienced by workers when workplace demands and responsibilities are greater than the worker can comfortably manage or are beyond the workers' capabilities (Leka et al. 2003). Although mental stress is a state of mind and body rather than an illness per se if it is experienced over a long period of time without resolution it can contribute to the development of serious physical and mental illnesses. As well as causing distress and illness to workers, mental stress reduces organisational productivity and can be a considerable burden on health and welfare services (Cotton 2008; and Guthrie et al. 2010). Work-related mental stress workers' compensation claims are the most expensive form of workers' compensation claim because they usually involve lengthy periods of absence (Guthrie et al. 2010; and Safe Work Australia 2012b).

Workers' compensation claims in Australia are coded according to the *Type of Occurrence Classification System 3rd Edition Revision 1* (TOOCS3.1) (ASCC 2008). The mechanism of *Mental stress* is assigned to claims where an employee has experienced an injury or disease because of mental stress in the course of their employment. Mental stress includes sub-categories distinguished by the nature of the actions, exposures and events that might lead to disorders as specified. The sub categories are:

- > **Work pressure**—mental stress disorders arising from work responsibilities and workloads, deadlines, organisational restructure, workplace interpersonal conflicts and workplace performance or promotion issues.
- > **Exposure to workplace or occupational violence**—includes being the victim of assault by a person or persons who may or may not be work colleagues; and being a victim of or witnessing bank robberies, hold-ups and other violent events.
- > **Exposure to traumatic event**—disorders arising from witnessing a fatal or other incident.
- > **Suicide or attempted suicide**—includes all suicides regardless of circumstances of death and all attempted suicides.
- > **Other mental stress factors**—includes dietary or deficiency diseases (Bulimia, Anorexia).
- > **Work-related harassment &/or workplace bullying**—repetitive assault and/or threatened assault by a work colleague or colleagues; and repetitive verbal harassment, threats, and abuse from a work colleague or colleagues.
- > **Other harassment**—being the victim of sexual or racial harassment by a person or persons including work colleague/s.

Note: The category *Harassment* in the Second Edition of the *Type of Occurrence Classification System* (TOOCS) (ASCC 2008) was discontinued in the Third Edition; cases that would have been assigned to it have been split into *Work-related harassment &/or workplace bullying* or *Other harassment*.

Trends in mental stress

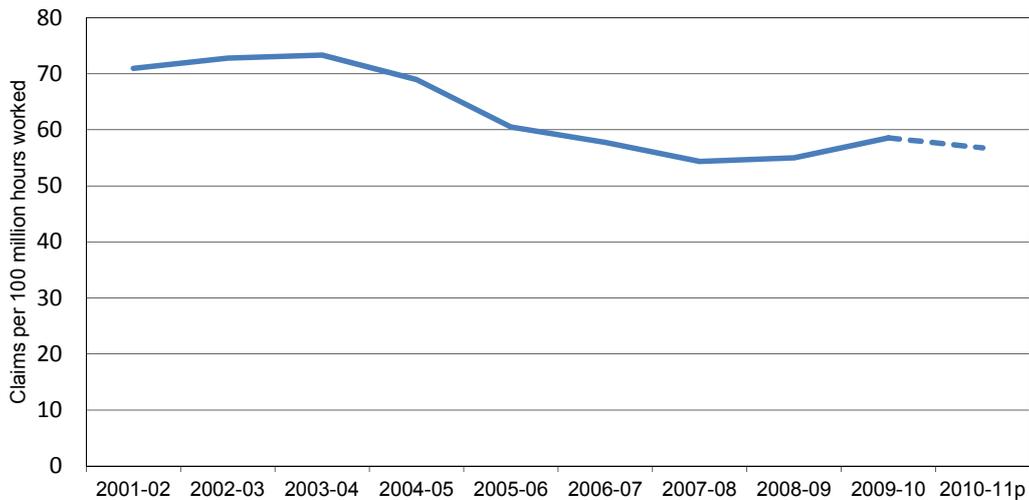
Over the past few decades there have been considerable gains made in Australia in terms of reducing the number of physical injuries and fatalities in the workplace. In contrast mental disorders arising from work-related mental stress have become an increasingly important concern (Medibank Private 2008; Noblet & LaMontagne 2006; and LaMontagne et al. 2010a).

Despite the overall decline in the number of workers' compensation claims caused by mental stress in Australia since 2003–04 (see Figure 1) mental stress continues to be a major and challenging concern in the workplace (Ford 2004; LaMontagne et al. 2010a; and Medibank Private 2008). Research indicates that the number of compensation claims for mental disorders lodged due to work-related mental stress substantially underestimates the size of the problem, particularly in lower socio-economic jobs (LaMontagne et al. 2010b).

The Australian Bureau of Statistics (ABS) *Work-related Injuries Survey 2009–2010* (ABS 2010) showed workers who reported mental stress were less likely to claim workers' compensation than workers with other injuries—70% of workers who reported they experienced work-related stress did not apply for workers' compensation. Comparison between the 2005–06 and 2009–10 ABS *Work-related Injuries Surveys* shows exposure to mental stress remained stable, accounting for 5% of all work-related injuries for both surveys (ABS 2006 and ABS 2010).

There are a number of factors that may explain the recent downward trend in successful workers' compensation claims for mental disorders caused by work-related mental stress. Research has found North American employees deferred claiming compensation because they feared job loss (Institute for Work & Health 2009). This may also apply to Australian employees who have experienced job insecurity because of their precarious work status. Around one-fifth of Australia's workforce are employees without leave entitlements (casual) who do not have permanent job security (LaMontagne et al. 2010b; and van Wanrooy et al. 2009). However, the proportion of workers casually employed in Australia has remained relatively constant at about 20% of the workforce since 1999 (ABS 2012).

Figure 1 Mental stress: Frequency rates (claims per 100 million hours worked), Australia, 2001–02 to 2010–11p



Note: Dotted line indicates 2010–11 data are preliminary.

The ABS *Work-related Injuries Survey 2009–2010* found casual employees were less likely than employees with leave entitlements to apply for workers' compensation even though they reported higher injury rates. The reasons casual employees gave for not claiming included: they didn't know they were covered or eligible; it was inconvenient or too much trouble; their injury was minor/not necessary; and because they thought it would have a negative impact on their current or future employment opportunities (ABS 2010). While around half (51%) of all injuries that involved some time lost from work were claimed, injuries that involved stress were only claimed in 40% of cases—this may be because they are not as easily attributable to work as are claims for injuries such as fractures etc. (ABS 2010).

Cost of work-related mental stress

The impact of mental stress on the productivity of workplaces and the broader economy is considerable. A Medibank Private commissioned study (Medibank Private 2008) highlighted the significance of mental stress as an economic and social issue in the workplace. The study reported that in 2007 the total cost of work-related mental stress to the Australian economy was \$14.81 billion; the direct cost to employers alone in stress-related presenteeism and absenteeism was \$10.11 billion. Medibank Private reported that these figures would be even higher if they included the hidden costs associated with re-staffing and re-training that result from high staff turnover caused by stress. These findings are likely to underestimate the overall cost to the economy because mental stress is also known to contribute to a number of other health conditions (LaMontagne et al. 2010a; and Medibank Private 2008).

Causes of work-related mental stress

Lifeline Australia's National Stress Poll conducted in 2009 (Lifeline 2009) showed that work caused more stress than other factors such as finances, concerns about the future, health or relationships. Although stress can be a positive motivating factor that can help increase people's performance in order to achieve goals, too much stress, accompanied by low job control, results in reduced performance and less motivation (Leka et al. 2003; and Medibank Private 2008).

Research indicates that work-related mental stress is predominantly caused by organisational factors in the work place (Noblet & LaMontagne 2006). However, whether or not a person experiences work-related mental stress and how they deal with it depends on the job, their personality, and their general health and personal life circumstances (LaMontagne et al. 2010b). Individual characteristics can either help or hinder a person's ability to cope with stressful situations. These individual factors help to explain why one person may perceive a job as stressful, while another may view it as a welcome challenge (Leka & Jain 2010; Noblet & LaMontagne 2006).

Other reasons believed to be contributing to the high incidence of work-related stress in modern Australian society include: increased workplace competition, more competitive and cost-conscious marketplaces; the need for greater efficiencies because of globalisation; the 2008 global financial crisis and other factors. These factors have resulted in increased demands on workload, organisational downsizing and outsourcing of services, creating pressures that affect the health and well-being of employees as well as the productivity of organisations (LaMontagne et al. 2010b; van Wanrooy et al. 2009).

Academic literature refers to workplace stressors as psychosocial hazards—these are conditions or events that can cause mental stress. The term hazards is considered to be interchangeable with the term stressors in the workplace context and refers to those conditions that could expose a worker to harm to their health or well being. There are a number of terms used in academic literature to refer to the same conditions including stressors, stress-related hazards and mechanisms.

The World Health Organization (WHO) and the British Standards Institute identify 10 primary psychosocial hazards (British Standards Institution 2011 and Leka & Jain 2010). Table 1 lists each of these psychosocial hazards together with a definition (sourced directly from Leka & Jain 2010) and maps these hazards to the probable TOOCS *Mental stress* mechanism sub-categories that are most likely used to code mental disorders arising from these psychosocial hazards.

Table 1: Probable alignment of psychosocial hazards to TOOCS mental stress sub-categories

Psychosocial hazards	Definition	Probable alignment to TOOCS Revision 1 Mechanism Mental stress sub-categories
Job content	Lack of variety or short work cycles, fragmented or meaningless work, under use of skills, high uncertainty, continuous exposure to people through work	Work pressure Other mental stress factors
Work load & work place	Work overload or under load, machine pacing, high levels of time pressure, continually subject to deadlines	Work pressure
Work schedule	Shift working, night shifts, inflexible work schedules, unpredictable hours, long or unsociable hours	Work pressure Other mental stress factors
Control	Low participation in decision making, lack of control over workload, pacing, etc.	Work pressure
Environment & equipment	Inadequate equipment availability, suitability or maintenance; poor environmental conditions such as lack of space, poor lighting, excessive noise	Other mental stress factors
Organisational culture & function	Poor communication, low levels of support for problem solving and personal development, lack of definition of, or agreement on, organizational objectives	Work pressure
Interpersonal relationships at work	Social or physical isolation, poor relationships with superiors, interpersonal conflict, lack of social support, bullying, harassment	Work-related harassment &/or workplace bullying
Role in organization	Role ambiguity, role conflict, and responsibility for people	Work pressure
Career development	Career stagnation and uncertainty, under promotion or over promotion, poor pay, job insecurity, low social value to work	Other mental stress factors
Home-work interface	Conflicting demands of work and home, low support at home, dual career	Other mental stress factors

Sources: Leka & Jain (2010) and ASCC (2008)

Note: Safe Work Australia does not code claims data so this table is only an indication of how these psychosocial hazards might be coded.

When any of these stressors or a combination of them are present in a workplace, it is possible that work-related mental stress will be experienced by some employees (LaMontagne et al. 2010b and Leka et al. 2003). Many of these stressors interact with each other – the combination of stressors is likely to have a stronger effect than each of the stressors alone (Rick et al. 2002).

Effects of work-related mental stress and prevention

Over the past few decades researchers have found links between work-related mental stress, particularly when it is experienced for prolonged periods, and the development of a number of physical and mental illnesses. Short-lived and infrequent bouts of stress do not usually pose a risk to the health and wellbeing of employees; it is when the stressful situations are unresolved that it can result in harm. Some of these conditions occur within a short time frame (i.e. headaches, upset stomach, sleep disorders and irritability) while others (chronic illnesses) take much longer to develop. Work stress can also exert its influence on the uptake of risk factors or lifestyle choices that contribute to poor health, for example smoking, excessive alcohol, poor diet, and physical inactivity (Kuper & Marmot 2003; LaMontagne et al. 2010a; Leka & Jain 2010; and Noblet & LaMontagne 2006).

The harm to the health and wellbeing of an individual resulting from mental stress happens because stress can initiate a number of biological responses in the body. These reactions prepare the body for the instinctive “fight or flight” response to perceived threats. These responses involve the release of hormones that increase the heart rate, deepen respiration, and divert blood to muscles thus increasing

anxiety and alertness in readiness for action. When the human body is kept in a heightened state of distress, the rate of wear and tear increases and impairs the body's ability to repair and defend itself. This leads to an increased susceptibility to infection, diabetes, high cholesterol and fats in the blood, high blood pressure and the associated risk of stroke and heart attack (LaMontagne et al. 2010b; and Leka & Jain 2010).

A recent meta-analysis of published research (Leka & Jain 2010) linked work-related mental stress with an increased risk of developing the following conditions:

Psychological and social health

- > Anxiety.
- > Depression.
- > Aggression.
- > Burnout (combination of exhaustion and withdrawal).
- > Fatigue.
- > Social & behavioural health (harmful behaviours such as physical inactivity, alcohol abuse, smoking, poor diet and sleeping disorders— these are known risk factors for diseases such as Type 2 Diabetes, cardiovascular disease and some cancers).

Physical health

- > Musculoskeletal disorders (see below).
- > Cardiovascular disease.
- > Metabolic syndrome (which predisposes people to cardiovascular disease and diabetes).

Recent research has found increasing evidence of the role mental stress plays in the development of musculoskeletal disorders. Although physical and psychosocial mechanisms can cause musculoskeletal disorders independently of one another, they can interact to synergistically increase the risk. This makes the need to prevent work-related mental stress even more important because musculoskeletal disorders are the most commonly reported cause of work-related illness (Cox 2011; and Leka & Jain 2010).

Despite the wide range of conditions associated with mental stress, workers' compensation claims data show that almost 98% of mental stress claims were for mental disorders.

Mental stress is a significant issue for employees, employers and the broader economy and should be dealt with at an organisational level as well as at an individual level. Many organisations focus on helping individuals cope better with stress rather than dealing with the source of job stressors (Guthrie et al. 2010; and Noblet & LaMontagne 2006). However, research has shown that helping employees learn stress coping techniques may only have short-term success—it is not a long term solution (Ford 2004; and Noblet & LaMontagne 2006). The better option is to reduce the sources of workplace stress at an organisational level. This has been shown to have long-term benefits for the employees and the organisation as a whole. However the most comprehensive stress intervention is best done on three levels (Cox 2011; Ford 2004; Guthrie et al 2010; LaMontagne et al. 2010b; Noblet & LaMontagne 2006; Leka et al. 2003).

1. The 'primary' level is generally considered the most effective intervention and deals with the source of stressors in the workplace.
2. The 'secondary' intervention provides control at the individual employee level.
3. The 'tertiary' intervention aims to provide treatment to employees who have experienced a work-related mental stress injury.

The causes of mental stress need to be constantly monitored and assessed through a cycle of continuous improvement. A good employer designs and manages work in a way that avoids common risk factors for stress and prevents foreseeable problems as much as possible (Cox 2011).

2

Workers' compensation claims resulting from mental stress

This section examines trends in workers' compensation data for claims caused by the mechanism *Mental stress*. This mechanism is assigned to claims where an employee has experienced an injury or disease because of *Mental stress* in the course of their employment—almost 98% of *Mental stress* claims were for mental disorders.

The data used in this report is for all accepted workers' compensation claims (excluding journey claims) and includes all temporary, permanent and fatality claims. It should be noted that most Safe Work Australia publications publish only serious claims—those that are fatalities, permanent incapacity, and temporary incapacity involving one week or more off work. This report focusses on all accepted *Mental stress* claims regardless of how much time lost was incurred by the worker.

Serious claims represent around three-quarters of all *Mental stress* claims. Using all claims data in this report will provide a better understanding of *Mental stress* in Australia because workers' compensation statistics currently provide the only systematic means by which the incidence of workplace *Mental stress* can be estimated. However there are limitations to the amount of information that can be drawn from this data because they are restricted to only those workers who have made successful workers' compensation claims citing *Mental stress*.

Workers' compensation claims for *Mental stress* are coded according to the TOOCS3.1 sub-categories of this mechanism as outlined on page 1. Although academic research indicates that work-related *Mental stress* may arise from many factors these are not necessarily explicitly specified in TOOCS coding. Because of this and the restrictions of data to accepted claims, workers' compensation data cannot be used to estimate the prevalence of exposure to psychosocial hazards.

Workers' compensation statistics in this report do not cover all cases of occupational injuries and diseases for the following reasons:

- > While general state, territory and Australian Government workers' compensation legislation provides coverage for the majority of employees, some specific groups of workers are covered under separate legislation. Claims lodged by police in Western Australia and military personnel of the Australian Defence Forces are not included.
- > Workers' compensation schemes do not generally provide coverage to self-employed workers, resulting in an understatement of the number of work-related injuries and diseases of workers employed in industries where self-employed workers are common (Safe Work Australia 2012b). These industries include Agriculture, forestry & fishing, Construction, and Road transport. Large proportions of Managers & administrators and Tradespersons & related workers are also self-employed. Estimates of jobs and hours used as denominators in calculating incidence and frequency rates include only those worked by employees eligible for workers' compensation.

Additional limitations of the workers' compensation data relevant to *Mental stress* include:

- > The information gathered is only for those workers whose claims have been accepted. Some people affected by injury and disease may be less likely to lodge claims than others and claims for some injuries and disease may be less likely to be successful than others.
- > No information is captured on factors associated with workplace cultures or organisational behaviours that contribute to or negate *Mental stress*.

- > Details of a large number of *Mental stress* claims are concealed in the generic sub-category of *Other mental stress factors* which reveals no information on what hazards people have been exposed to that have resulted in their mental disorder.

It is important to bear in mind that these factors may affect the patterns observed in workers' compensation data that are presented in this chapter.

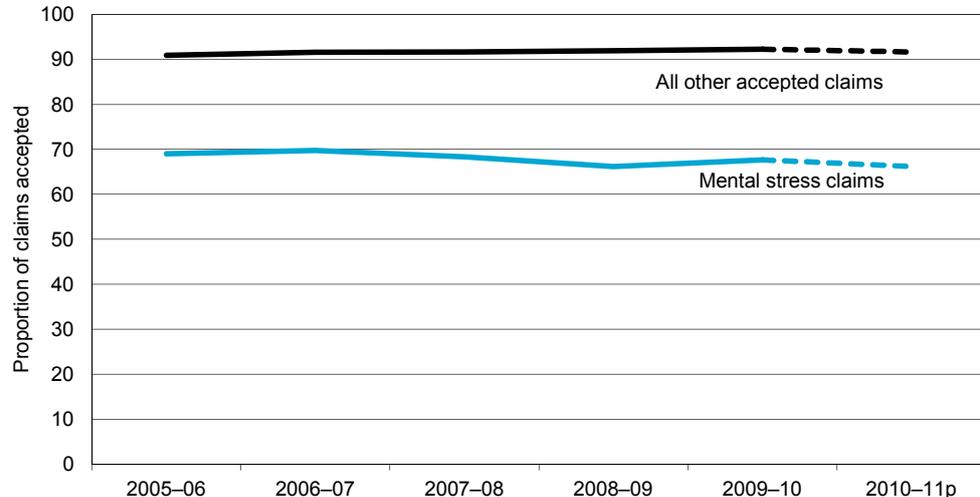
Despite the limitations of using workers' compensation data to describe the incidence of work-related *Mental stress* in the Australian working population, it is currently the only systematic national means of information collection on this issue. Workers' compensation claims also provide the only annual data collection on worker mental health and the psychosocial hazards to which they may be exposed.

Recent workers' compensation data

After a worker lodges a workers' compensation claim for a work-related injury or disease the claim can be accepted for payment, rejected, or marked as pending (still under consideration). Safe Work Australia receives this information about lodged claims from all jurisdictions except Tasmania, ACT Private and Seacare. Because some claims lodged towards the end of the most recent reporting period may be marked as 'pending' simply because of administrative delays, preliminary data for 2010–11p includes a greater proportion of pending claims than earlier updated data: 3.5% in 2010–11p compared with 0.7% in 2003–04.

Figure 2 shows accepted workers' compensation claims as a proportion of all lodged claims for both *Mental stress* and all other claims. The graph clearly shows that while the acceptance rate of all other claims remained higher than 90% over the period, the acceptance rate for *Mental stress* claims was notably lower: ranging from 69% in 2005–06 to 68% in 2010–11p.

Figure 2 Accepted workers' compensation claims as a proportion of all lodged claims^(a): *Mental stress* claims and all other accepted claims, Australia^(b), 2003–04 to 2010–11p



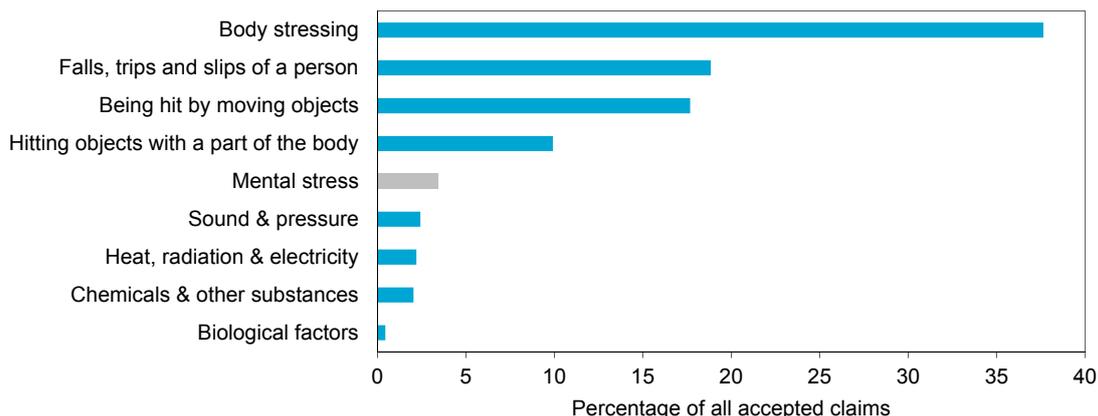
Note: Dotted line indicates 2010–11 data are preliminary.

- (a) The number of claims lodged includes claims that were still pending at the time the data was provided to Safe Work Australia: the most recent years' data have a larger number of pending claims.
- (b) Data from Tasmania, ACT (Private) and Seacare were not available.

Figure 3 compares the percentage of *Mental stress* claims in Australia for 2009–10 with the percentage of claims in other mechanism categories. *Mental stress* claims represented 3.4% of all accepted claims, making it the fifth most common mechanism, ranking well behind physical injuries caused by *Body stressing* (37.6% of claims), *Falls, trips and slips of a person* (18.8%), *Being hit by moving objects* (17.6%) and *Hitting objects with a part of the body* (9.9%).

Over the period 2003–04 to 2010–11p, there was a 7% decrease in the number of accepted *Mental stress* claims. However over this period claims in general decreased by 13% indicating a smaller improvement in *Mental stress* claims than claims overall.

Figure 3 Workers' compensation claims: percentage by mechanism, 2009–10



Characteristics of employees with *Mental stress* claims

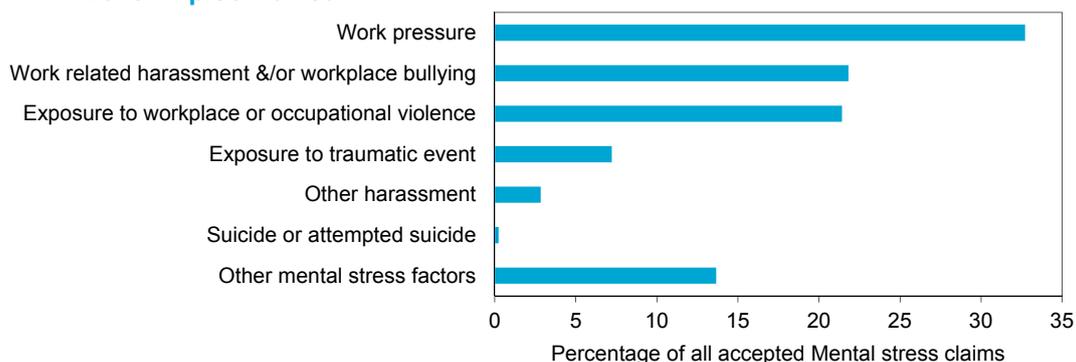
Readers should be aware that data for the three years 2008–09 to 2010–11p have been combined for exploration of the characteristics of workers who have experienced *Mental stress*. This smooths out the fluctuations in the data that occur from year to year. There were 28 495 *Mental stress* claims accepted in Australia over this period.

Any analysis of the *Mental stress* sub-categories in this chapter excludes Victorian data because most of their claims were coded to the general *Mental stress* category without further breakdown at the sub-category level.

Figure 4 provides a breakdown of all accepted *Mental stress* claims for 2008–09 to 2010–11p combined into individual mechanism sub-categories distinguished by the nature of the actions, exposures and events that might lead to disorders as specified in the TOOCS 3.1 (ASCC 2008).

Over the three-year period 2008–09 to 2010–11p, the most commonly specified sub-categories of *Mental stress* were *Work pressure* (33% of all *Mental stress* claims), *Work-related harassment &/or workplace bullying* (22%), *Exposure to workplace or occupational violence* (21%), and *Other mental stress factors* (14%).

Figure 4 Mental stress claims: percentage by sub-category, 2008–09 to 2010–11p combined



Note: Victorian data was not included in the analysis of sub-categories of claims because nearly all their *Mental stress* claims were not coded to sub-category level.

Male and female employees

Table 2 shows the number of all accepted claims in each of the *Mental stress* sub-categories by employee sex for the combined years 2008–09 to 2010–11p. Female employees accounted for 58.6% of all accepted *Mental stress* claims—this contrasts with all accepted workers' compensation claims in general, where female employees accounted for 33.6% of claims. The highest proportion of claims involving women were found in the sub-category *Other harassment* (72.3%) which includes being the victim of sexual or racial harassment by a person(s) including work colleague(s) and the least among claims for *Exposure to traumatic event* (36.4%).

Table 2 Mental stress claims: number and percentage by sex and sub-category, 2008–09 to 2010–11p combined

Sub-category of <i>Mental stress</i> ^(a)	Number of claims			% female
	Males	Females	Total	
Work pressure	2 780	4 220	7 000	60.3
Work-related harassment and/or workplace bullying	1 540	3 125	4 670	67.0
Exposure to workplace or occupational violence	1 885	2 700	4 585	58.9
Other mental stress factors	1 475	1 450	2 925	49.6
Exposure to traumatic event	980	565	1 545	36.4
Other harassment	170	440	610	72.3
Suicide or attempted suicide	30	20	50	40.4
Total mental stress claims^(b)	8 870	12 530	21 400	58.6

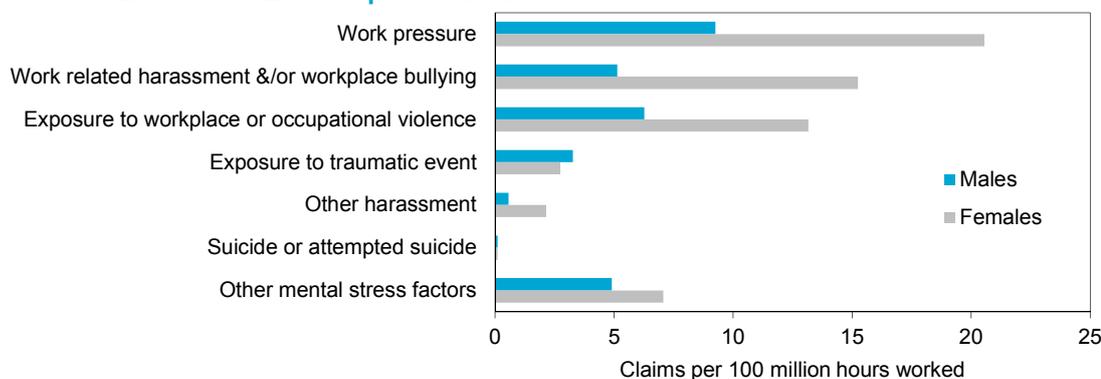
(a) Victorian data was not included in the analysis of sub-categories of claims because nearly all their *Mental stress* claims were not coded to sub-category level.

(b) Total includes a small number of claims in the sub-category *Harassment* which was discontinued in TOOCs 2.1.

Another way to examine the sex profile of all accepted *Mental stress* claims is to relate the number of claims reported for men and women in a given time period to the total hours that male and female employees spent at work over that period. This measure (expressed here as claims per 100 million hours worked) is termed the frequency rate. Comparing differences in the relative likelihood of a *Mental stress* claim between men and women using hours worked rather than employee numbers removes the confounding influence of the higher rates of part-time work among female employees.

Figure 5 shows the male and female frequency rates of claims in each of the *Mental stress* sub-categories. For both men and women the frequency rates were highest for *Work pressure*, and lowest for *Suicide or attempted suicide*. However per hour worked, women were three times more likely than men to have a claim caused by *Work-related harassment &/or workplace bullying* (15 claims per 100 million hours worked compared with 5) and twice as likely to have a claim caused by *Exposure to workplace or occupational violence*. Men experienced *Exposure to traumatic event* at a slightly higher rate than women.

Figure 5 Mental stress claims: frequency rates by sex and sub-category, 2008–09 to 2010–11p combined

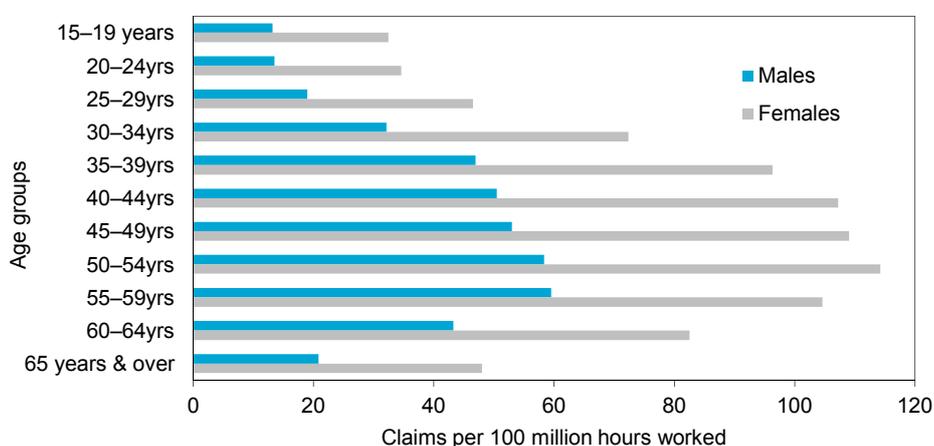


Note: Victorian data was not included in the analysis of sub-categories of claims because nearly all their *Mental stress* claims were not coded to the more detailed sub-category level.

Employee age

Figure 6 shows how male and female frequency rates for *Mental stress* claims varied by age group. It shows the female bias in *Mental stress* claims previously noted exists in all age groups. For both men and women a *Mental stress* claim was most likely among employees aged 40–59 years—particularly those aged 55–59 years for men and 50–54 years for women.

Figure 6 Mental stress claims: frequency rates by sex and age, 2008–09 to 2010–11p combined



Employee occupation

Table 3 examines *Mental stress* claims across broad occupation groups by sex for the combined years 2008–09 to 2010–11p. Around two-thirds of *Mental stress* claims were from three occupation groups: Professionals (26.5% of claims); Intermediate clerical, sales & service workers (21.0%) and Associate professionals (19.6%). Claims for women outnumbered claims for men in all but four groups: Associate professionals; Intermediate production & transport workers; Labourers & related workers; and Tradespersons & related workers. However, these occupations are predominantly male occupations and when frequency rates for these occupations are examined it shows females have higher frequency rates than males in these occupations.

The highest frequency rates of *Mental stress* claims for both males and females were found in Associate professionals. This occupation group includes Police officers, Prison officers, Welfare associate professionals, Ambulance officers & paramedics and Enrolled nurses. Females had higher frequency rates than males in all occupations except for Advanced clerical & service workers.

Table 3 Mental stress claims: number and percentages by sex and occupation, 2008–09 to 2010–11p combined

Occupation	Number of claims				Frequency rate ^(a)	
	Males	Females	Total	%	Males	Females
Professionals	2 205	5 360	7 560	26.5	38.7	95.2
Intermediate clerical, sales & service workers	1 545	4 445	5 985	21.0	58.9	79.2
Associate professionals	2 835	2 740	5 575	19.6	68.4	99.2
Intermediate production & transport workers	1 860	365	2 220	7.8	44.7	75.8
Elementary clerical, sales & service workers	720	1 270	1 990	7.0	50.4	59.9
Labourers & related workers	870	790	1 660	5.8	34.0	74.2
Managers & administrators	725	915	1 640	5.8	20.7	72.4
Tradespersons & related workers	970	265	1 235	4.3	17.0	55.2
Advanced clerical & service workers	105	475	580	2.0	46.2	43.2
Total Mental stress claims^(b)	11 845	16 650	28 495	100.0	39.4	81.1

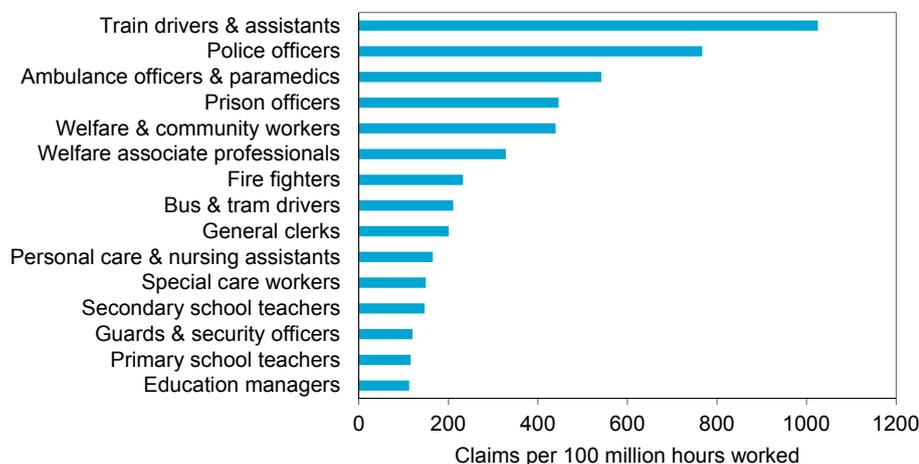
(a) Calculated as claims per 100 million hours worked.

(b) Includes claims where occupation was not stated.

High risk male occupations

Figure 7 identifies the 15 occupation sub-categories that had the highest male frequency rates of *Mental stress* claims for the combined years 2008–09 and 2010–11p. These sub-categories together accounted for 43% of *Mental stress* claims for men.

Figure 7 Mental stress claims for men: occupation sub-categories^(a) with the 15 highest frequency rates, 2008–09 to 2010–11p combined



(a) Based on specified occupation categories of the 4th level unit groups of the Australian Standard Occupation Classification (ASCO). Occupations are limited to those involving more than 100 claims.

Common threads running through these occupations include high levels of personal responsibility for the welfare of other people and where there is potential exposure to dangerous situations. Groupings included:

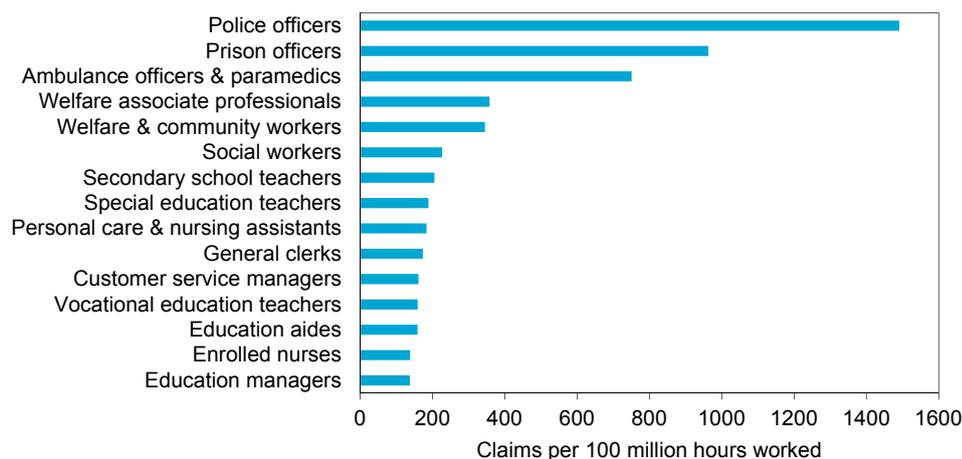
- > **Drivers for public transport**—Train drivers & assistants (1025 claims per 100 million hours worked: the highest male frequency rate, about 26 times the overall male frequency rate which was 39); and Bus and tram drivers.
- > **Law and order occupations**—Police officers (767 claims per 100 million hours worked); Prison officers; and Guards & security officers.
- > **Caring professionals**—Ambulance officers & paramedics (542 claims per 100 million hours worked); Welfare & community workers; Welfare associate professionals; Personal care & nursing assistants and Special care workers.
- > **Teachers**—Secondary school teachers (146 claims per 100 million hours worked), Primary school teachers; and Education managers.

High risk female occupations

Figure 8 identifies the 15 occupation sub-categories that had the highest female frequency rates of *Mental stress* claims for the years 2008–09 to 2010–11p combined. These sub-categories together accounted for 34% of *Mental stress* claims for women. The occupations were similar to those for men, with differences between the male and female listings stemming primarily from the fact that the listings are limited to 15 sub-categories and from the exclusion of sub-categories with small numbers of employees resulting in frequency rates with high standard errors. Groupings included:

- > **Law and order occupations**—Police officers (1491 claims per 100 million hours worked): the highest female frequency rate, almost 18 times the overall female frequency rate of 81); and Prison officers.
- > **Caring professionals**—Ambulance officers & paramedics (751 claims per 100 million hours worked); Welfare associate professionals; Welfare & community workers; Social workers; Personal care & nursing assistants; and Enrolled nurses.
- > **Teachers**—Secondary school teachers (205 claims per 100 million hours worked); Special education teachers; Vocational education teachers; Education aides; and Education managers.

Figure 8 Mental stress claims for women: occupation sub-categories^(a) with the 15 highest frequency rates, 2008–09 to 2010–11p combined



(a) Based on specified occupation categories of the 4th level unit groups of the Australian Standard Occupation Classification (ASCO). Occupations are limited to those involving more than 100 claims.

Industry of employer

Table 4 examines *Mental stress* claims across broad industry divisions by sex for the years 2008–09 to 2010–11p combined. Around two-thirds of all *Mental stress* claims were from five industry groups: Health & community services (20.5%), Education (16.0%), Personal & other services (13.6%), Government administration & defence (9.6%) and Retail trade (7.2%).

The industry with the highest frequency rate for men was Personal & other services with 238 claims per 100 million hours worked. This was one of only two industries where the frequency rates were higher for males than females. This division includes occupations such as Police officers, Prison officers; Guards and security officers; and Fire fighters. Likewise for women the Personal & other services industry had the highest rate of claims with 199 per million hours worked. The Health & community services and Education industries also had high frequency rates and the highest number of claims.

Table 4 Mental stress claims: number, percentage and frequency rates by sex and industry, 2008–09 to 2010–11p combined

Industry	Number of claims			%	Frequency rate ^(a)	
	Males	Females	Total		Males	Females
Health & community services	1 294	4 557	5 852	20.5	103.0	112.9
Education	12 18	3 336	4 554	16.0	92.8	125.7
Personal & other services	2 362	1 504	3 866	13.6	238.5	199.2
Government administration & defence	1 110	1 635	2 744	9.6	78.8	119.9
Retail trade	708	1 348	2 056	7.2	20.9	46.8
Property & business services	788	1 216	2 004	7.0	20.4	47.3
Transport & storage	1 503	384	1 887	6.6	75.5	72.8
Manufacturing	841	464	1 305	4.6	20.0	38.2
Accommodation, cafes & restaurants	437	636	1 074	3.8	41.7	58.8
Finance & insurance	183	617	800	2.8	16.7	59.8
Wholesale trade	340	331	671	2.4	19.0	50.4
Construction	412	122	534	1.9	10.8	32.9
Cultural & recreational services	201	227	428	1.5	29.9	43.8
Communication services	78	87	165	0.6	9.1	24.5
Mining	126	32	158	0.6	12.2	19.6
Electricity, gas & water supply	110	41	151	0.5	23.3	33.4
Agriculture, forestry & fishing	79	60	139	0.5	9.5	28.1
Total mental stress claims^(b)	118 46	16 650	28 496	100.0	39.4	81.1

(a) Calculated as claims per 100 million hours worked.

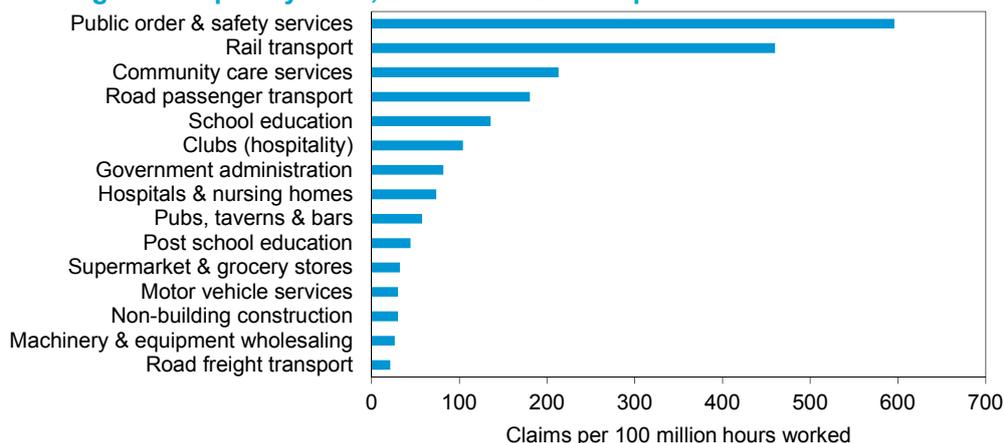
(b) Includes claims where industry was not stated.

Male workers

Figure 9 identifies the 15 industry sub-categories that had the highest male frequency rates of *Mental stress* claims for the years 2008–09 to 2010–11p combined. These sub-categories accounted for 62% of *Mental stress* claims for men.

The highest male frequency rate (596 claims per 100 million hours worked) occurred in Public order & safety services (primarily police services and corrective centres): a rate 15 times the overall male frequency rate of *Mental stress* claims. Also prominent were the rates in Rail transport, 460 claims per 100 million hours worked, Community care services (213), and Road passenger transport (180).

Figure 9 Mental stress claims for men: the 15 industry sub-categories^(a) with the highest frequency rates, 2008–09 to 2010–11p combined



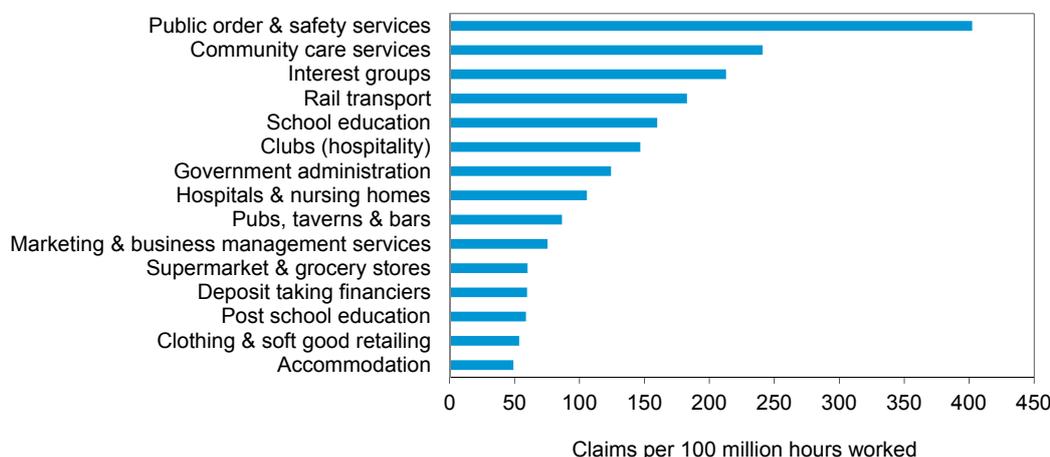
(a) Based on industry categories of the 3rd levels (Groups) of the Australian and New Zealand Standard Industrial Classification (ANZSIC). Industries are limited to those involving more than 100 claims.

Female workers

Figure 10 identifies the 15 industry sub-categories that had the highest female frequency rates for the years 2008–09 to 2010–11p combined. These sub-categories accounted for 68% of *Mental stress* claims for women.

The highest female frequency rate (402 claims per 100 million hours worked) occurred in Public order & safety services (primarily involving police services and corrective services). This rate was almost five times the overall female frequency rate of *Mental stress* claims. Other high female frequency rates of *Mental stress* claims occurred in Community care services (241 claims per 100 million hours worked); Interest groups which consists of units of associations mainly engaged in promoting the interests of employers or self-employed persons, (213); Rail transport (183), School education (160) and Clubs—hospitality (147).

Figure 10 Mental stress claims for women: the 15 industry sub-categories^(a) with the highest frequency rates, 2008–09 to 2010–11p combined



(a) Based on industry categories of the 3rd levels (Groups) of the Australian and New Zealand Standard Industrial Classification (ANZSIC). Industries are limited to those involving more than 100 claims.

Median time lost from work and median direct cost of claims

Table 5 shows the median time lost from work and the median direct cost of claims by sex in each sub-category of *Mental stress*. Factors influencing the direct cost of a workers' compensation claim include the medical expenses, the length of any absence from work, and the employee's pre-injury salary level. Data are presented for 2009–10 rather than 2010–11p because the time lost from work and the direct cost associated with a compensation claim are generally not developed until some time after the end of the financial year in which the claim was submitted.

In 2009–10, *Other harassment* claims had a median time lost from work of 9.2 weeks (15 times the median time lost of 0.6 weeks for all claims) and *Work pressure* claims had the highest median direct cost of \$17 500, (almost 12 times the median direct cost of all claims).

Male workers recorded a slightly longer median time lost from work than for women (6.2 weeks lost from work compared with 6.0 weeks) for *Mental stress* claims overall. This was particularly true for the sub-categories of *Work pressure* and *Exposure to workplace or occupational violence*. However female workers recorded longer median time lost from work for *Other harassment*, *Work-related harassment &/or workplace bullying*, *Exposure to traumatic event*, *Suicide or attempted suicide* and *Other mental stress factors*.

The median direct cost for *Mental stress* claims overall was also higher for male workers than female workers (\$13 400 versus \$12 300). The lower cost of *Mental stress* claims for females occurs because compensation is generally based on average pre injury weekly earnings which is generally less than men. Men had higher median direct costs than women in the three sub-categories of *Work pressure*, *Suicide or attempted suicide* and *Exposure to workplace or occupational violence*. The differences in median cost between males and females was substantial for *Work pressure* and *Suicide or attempted suicide* (\$6900 and \$8800 respectively). However, the median costs for *Suicide or attempted suicide* were based on very few claims

The median cost of *Other harassment* claims for females was \$6300 higher than for males. The higher median costs for females may be due to claims for sexual harassment. Many claims in this category are likely to be for sexual harassment.

Table 5 Mental stress claims: median time lost from work and median direct cost by sex and sub-category, 2009–10

Sub-category of Mental stress	Males	Females	Total
Median time lost (working weeks)			
Other harassment	8.0	10.2	9.2
Work-related harassment &/or workplace bullying	8.0	9.4	8.6
Work pressure	9.6	7.7	8.4
Suicide or attempted suicide	0.6	3.8	3.4
Exposure to traumatic event	3.0	3.9	3.2
Exposure to workplace or occupational violence	4.2	2.4	3.0
Other mental stress factors	2.7	3.8	3.0
Median time lost for all mental stress claims	6.2	6.0	6.1
Median time lost for all accepted claims	0.4	0.6	0.6
Median direct cost (\$)			
Other harassment	12 700	19 000	16 700
Work-related harassment and/or workplace bullying	15 900	16 800	16 400
Work pressure	22 100	15 200	17 500
Suicide or attempted suicide	15 200	6 400	8 000
Exposure to traumatic event	7 400	7 700	7 700
Exposure to workplace or occupational violence	8 300	5 600	6 400
Other mental stress factors	8 100	8 800	8 500
Median direct cost for all mental stress claims	13 400	12 300	12 700
Median direct cost for all accepted claims	1 500	1 600	1 500

Note: Victorian data was not included in the analysis of sub-categories of claims because nearly all their *Mental stress* claims were not coded to the more detailed sub-category level.

Conclusion

The workers' compensation data in this chapter provide some indication of the factors or working conditions that contribute to *Mental stress* and the characteristics of those employees who make successful compensation claims. However, the workers' compensation data cannot fully describe the actual prevalence of work-related *Mental stress*, the extent of those working conditions contributing to *Mental stress* or those most vulnerable to its effects.

Notable findings include:

- > *Mental stress* claims are the most expensive form of workers' compensation claims because of the often lengthy periods of absence from work typical of these claims.
- > *Mental stress* claims are predominantly made by women.
- > Men and women are more likely to make a claim for *Mental stress* as they get older but after they reach 54 years the likelihood that they made a claim decreases.
- > More Professionals made claims for *Mental stress* than other any other occupation with over a third of their claims made for *Work pressure*.
- > There were more mental stress claims made for *Work pressure* than any other sub-category.
- > The hazards that result in mental stress claims vary with worker age. Younger workers are more likely to make claims as a result of *Exposure to workplace or occupational violence*, whereas *Work pressure* is the main cause of *Mental stress* claims for older workers, peaking for those aged 45–49 years.
- > General clerks, School teachers and Police Officers accounted for the majority of claims for *Work pressure*.
- > Women were around three times more likely than men to make a workers' compensation claim due to *Work-related harassment &/or workplace bullying*. Approximately one-third of all claims in this *Mental stress* sub-category were made by workers in the occupational categories of Advanced clerical & service workers and General clerks.
- > For the industries with the highest number/rate of *Mental stress* claims, the majority of claims were for *Work pressure*. This was particularly true in the Education sector. Claims for *Exposure to workplace or occupational violence* were notable in the Retail trade industry, while the Transport & storage and Health & community services industries dominated claims for *Exposure to a traumatic event*.

3 Explanatory notes

1. Scope and coverage

With the exception of data reported from the Australian Bureau of Statistics' (ABS) *Work-related Injuries Survey* (WRIS), the statistics presented in this publication are compiled from **all** accepted claims made under the state, territory and Australian Government workers' compensation Acts.

The statistics in this report do not cover all cases of occupational injuries and diseases for the following reasons:

- > Claims arising from a journey to or from work are excluded.
- > While general state, territory and Australian Government workers' compensation legislation provides coverage for the majority of employees, some specific groups of workers are covered under separate legislation. Claims lodged by the police in Western Australia and military personnel of the Australian Defence Forces are not included in this publication.
- > Workers' compensation schemes do not generally provide coverage to self-employed workers, resulting in an understatement of the number of work-related injuries and diseases of workers employed in industries where self-employed workers are common. These industries include Agriculture, forestry & fishing; Construction; and Road transport. Large proportions of Managers & administrators and Tradespersons & related workers are also self-employed. Estimates of jobs and hours used as denominators in calculating incidence and frequency rates include only those worked by employees eligible for workers' compensation.

2. Age of employee

The age of the employee used in this report is derived from their date of birth and the date on which the injury occurred or the disease was first reported to the employer. Data related to the open-ended age group 65 years & over should be used with caution as claims can be made by persons no longer in the workforce, particularly for diseases related to exposure to substances while working. The employee estimates used in this publication only count persons currently working. It is possible that frequency rates shown in this publication for this age group overstate the actual rates.

3. Time lost from work

Time lost figures shown in this publication are measured in working weeks lost from work and exclude estimates of future absences.

Time lost from work comprises the total period of time for which compensation was paid — the time lost is not necessarily continuous, and may occur over a number of separate periods. Where an employee returns to work on a part-time basis they may continue to receive pro-rata payments and the total number of hours for which compensation has been paid is included in calculating time lost.

All claims are included in calculating median working weeks lost, including claims that do not involve payments for time off work (such as fatalities).

4. Payments

Median costs are rounded to the nearest \$100 in this publication. Medians are used in preference to averages because a few long-term claims involving large compensation payments can skew the average. It is not possible to calculate total costs by multiplying the median payment by the number of claims.

In contrast with median time lost, the calculation of median costs excludes claims where no payments apart from payments for goods and services like medical treatment have been supplied.

Safe Work Australia assumes that all accepted claims would in fact have payments made and that these payments are yet to be supplied. The inclusion of claims with no applicable payments would erroneously reduce the median. As this situation is more likely to occur in the preliminary data for the most recent year of claims this report does not present median costs data for the preliminary year.

5. Industry classification

The industry shown in this publication is the industry of the establishment that formally employs the claimant, classified to the Australian and New Zealand Standard Industrial Classification (ANZSIC), 1993 edition (ABS Cat. No. 1292.0). The term industry is used in this report to mean the industry division level of the classification.

As we are measuring industry of employer, a claim made by a person employed under labour hire arrangements is coded to the Contract staff services industry class (ANZSIC code 7862) which is part of the Property & business services industry division. Industry of employer will be different to Industry of workplace for a range of workers.

The denominators used to calculate rates are primarily based on ABS Labour Force Survey (LFS) data. Some respondents to the LFS do not provide enough information to code the industry of their employer to the most detailed level of the classification. In these cases industry is coded to a less detailed level. For the purposes of this analysis such records are assigned to a detailed category on a pro-rata basis in accordance with the proportions in the dataset of those coded to that level of the classification (see Explanatory note 11).

The ABS recently reviewed the methodology used to estimate the number of employees covered by workers' compensation. The incidence and frequency rates shown in this publication from 2005–06 onwards are based on the new ABS estimates. Estimates for previous years have been adjusted to allow continued time series analysis, however caution should be used especially when viewing movements at lower levels of the classification.

In addition, denominators used in calculating rates at detailed levels of the industry classification have larger standard error than those used at higher levels. This means that rates for industry groups may be less reliable than those for industry divisions and subdivisions.

6. Occupation classification

The occupation of the claimant is classified to the ASCO, 2nd Edition, July 1997 (ABS Cat. No. 1222.0). In this publication, the term occupation is used to mean occupation group level as per the classification.

The denominators used to calculate rates are primarily based on ABS LFS data. Some respondents to the LFS do not provide enough information about their jobs to code occupation to the most detailed level of the classification. In these cases occupation has been coded at a less detailed level. For the purposes of this analysis such records are assigned to a detailed category on a pro-rata basis in accordance with the proportions in the dataset of those coded to that level of the classification (see Explanatory note 9).

The ABS recently reviewed the methodology used to estimate the number of employees covered by workers' compensation. The incidence and frequency rates shown in this publication from 2005–06 onwards are based on the new ABS estimates. Estimates for previous years have been adjusted to allow continued time series analysis, however caution should be used especially when viewing movements at lower levels of the classification.

Denominators used in calculating rates at detailed levels of the occupation classification have larger standard error than those used at higher levels. This means that rates for occupation minor groups may be less reliable than those for occupation major and sub-major groups.

7. Confidentiality

Claim numbers in this publication are rounded to the nearest 5. This helps protect confidential information about employers and employees. Due to rounding differences may appear between the reported totals and the sum of the row or column values. Rates are calculated on unrounded claim numbers.

8. Time series analysis

Comparison of 2010–11 data with previous years should be conducted with caution. The data shown for 2010–11 are preliminary (denoted by 'p'). Data from previous years are more likely to have been finalised and are therefore generally more accurate and comprehensive than the most recent year's data. Accordingly time series analysis excludes the preliminary data.

In addition when analysing trends over time consideration needs to be given to legislative changes that may have been made within certain jurisdictions during the period being investigated. The current workers' compensation arrangements can be found in the *Comparison of workers' compensation arrangements in Australia and New Zealand* (Safe Work Australia 2012c).

9. Denominator data used to calculate incidence and frequency rates

Estimates of the number of employees and hours worked for each Australian workers' compensation jurisdiction are supplied annually by the ABS. The ABS provides two sets of estimates for each jurisdiction: one split by sex, age and industry and the second by occupation. This restricts presentation of incidence and frequency rates to the categories that ABS data support i.e. it is not possible to calculate rates by occupation within an industry.

The denominator data are derived principally from the LFS, adjusted to account for differences in scope between the LFS and workers' compensation coverage. The largest adjustment is for workers who have more than one job. Because a person holding two or more jobs (a multiple jobholder) may lodge a workers' compensation claim with respect to an illness or injury incurred in any of those jobs, a count of jobs is a more appropriate denominator than a count of persons in calculating incidence rates. The multiple jobholder adjustment adds around 5% to the number of employees in the LFS. Other adjustments aim to ensure correct industry of employer coding for employees working under labour hire arrangements.

In 2008, the ABS conducted a review of the methodology used to calculate the number of employees in each industry and the number of hours worked by each employee. After the review the ABS implemented a number of changes to their methodology, which increased their estimates. As the ABS could only supply new estimates back to 2005–06, estimates for earlier years were adjusted based on the movement between the old and new estimates for 2005–06 to avoid a break in the time series. Publications from 2007–08 have used these new estimates. Comparison with previous publications should therefore not be made.

The major change to the estimates following the review was in the industry coding of 'jobs other than the main job' of multiple job holders. Where previously the second job was combined into the industry of the first job, these have now been separated to be shown in the industry in which the employee works in each separate job. This has resulted in changes to the incidence and frequency rates in some industries. In particular, a decrease in employee estimates occurred in Government administration & defence, Manufacturing and Health & community services as these were the industries where a greater proportion held a second job. An increase occurred in Cultural & recreational services and Accommodation, cafes & restaurants as these were the industries where the second job was most commonly worked.

While the ABS is able to adjust the employee estimates to account for the industries where the second job was worked, it is unable to adjust the hours worked in a similar manner. All hours worked have been allocated to the industry of the main job.

Because eligibility for workers' compensation varies from jurisdiction to jurisdiction, further adjustments are necessary. The most significant adjustments are:

- > Police in Western Australia, who are covered by a separate scheme that does not report to Safe Work Australia, are excluded from the denominators.
- > Under the Queensland legislation, Owner-managers of incorporated enterprises (OMIEs) who are included in the standard definition of 'Employee' have the option of purchasing workers' compensation insurance for themselves. Based on 2006 Census data, some 10% of employed persons in Queensland were OMIEs an unknown number of whom were covered by workers' compensation. This population has been excluded from the denominators, and claims have also been excluded from the numerators.

Differences in movements between incidence and frequency rates occur because of differences in the two measures. The employee estimate is a head count of all employees who were employed during the reference period. This measure does not take into account the proportion who were not at work and therefore not at risk on any given day. The frequency rate however is a measure of exposure per actual hour of work. This measure also reflects that many workers work on a part-time basis. While this publication provides both measures, it is recommended that frequency rates be used in preference to incidence rates when comparing movements over time.

10. Reliability of the data

The statistical data in this publication are subject to two sources of error.

Non-sampling error

Non-sampling error describes problems with the data that arise from administration errors. Non-sampling errors may occur in any statistical collection during data reporting, recording and processing. Non-sampling error can result from one or more of the following:

- > deficiencies in data collecting forms.
- > incorrect recording of answers by the respondent or the processing agency.
- > inaccurate coding.
- > non-response or omitted cases.
- > errors in collection procedures.
- > errors in data entry, editing and processing.

Non-sampling error may affect both the numerator and denominator data. It is difficult to quantify non-sampling error.

Sampling error

Sampling error is a measure of the variability that occurs by chance because a sample rather than the entire population is surveyed. The likelihood of a difference between the findings and the real effect occurring in the population is determined by measuring standard error. Standard error indicates the extent to which an estimate might have varied from the real effect in the population by chance because only a sample of that population was selected for testing. Sampling variability is usually expressed as a percentage of the estimate to which it refers — relative standard error (RSE).

In this publication the denominator data used in calculating incidence and frequency rates are the only data which are subject to sampling error. When the incidence and frequency rates have high relative standard errors, the tables are annotated with one asterisk to indicate an RSE of the denominator greater than 25% and np if the RSE is greater than 50%. The frequency rates reported in this publication have a RSE rated less than 25%. None of the data in this report has an RSE greater than 25%.

In general at the aggregate level at which most compendium data are presented high RSEs are rare. However, readers should note that rates relating to groups with relatively small numbers of employees are likely to have comparatively high RSEs and should therefore be viewed with caution.

11. ABS Work-related Injuries Survey (WRIS)

Safe Work Australia contributes funding towards a national survey of work-related injuries run by the ABS as part of the Multi-purpose Household Survey. The most recent WRIS was conducted for the period 2009–10 with results released in December 2010. In this survey, participants aged 15 years and over, were asked to recollect and relate a range of details about their most recent work-related injury or illness no matter how minor, that occurred within the last 12 months. The survey also collected information on labour force characteristics (e.g. industry, occupation) and personal demographics (e.g. age, sex), which are useful when making comparisons to the National Data Set for Compensation-based Statistics (NDS). The WRIS also collected information on employment arrangements, such as whether the worker worked under shift arrangements, worked part-time or had access to paid leave. This type of information is not collected in the NDS. Importantly the WRIS survey also collected information about whether or not workers' compensation was sought and if not, why not.

4 Abbreviations & glossary

Abbreviations

ABS	Australian Bureau of Statistics
ASCO	Australian Standard Classification of Occupations
ANZSIC	Australia and New Zealand Standard Industrial Classification
LFS	Labour Force Survey
NDS	National Dataset for Compensation-based Statistics
TOOCS 3.1	Type of Occurrence Classification System 3rd Edition Revision 1
WRIS	Work-related Injuries Survey
WHO	World Health Organization

Glossary

Absenteeism: When employees do not come to work.

Frequency rate: The number of claims per 100 million hours worked by employees.

Incidence rate: The number of claims per thousand employees.

Industry: The industry of the employer of the employee making the claim. This may be different from the industry where the incident actually occurred. In this publication the term Industry is used to refer to the industry of employer (as per ANZSIC93).

Mechanism: The mechanism of incident classification is intended to identify the overall action, exposure or event that best describes the circumstances that resulted in the most serious injury or disease.

Median: The central value of all observations in the population ranked from smallest to largest for the relevant property. In other words one half of the observations are higher than the median and one half lower. For even numbers of observations, the median is the average of the two middle values.

Because a small number of uncharacteristically long absences or high payments can skew the average (mean) in this publication median cost and median time lost from work of serious workers' compensation claims approximate to a 'typical' claim.

Mental stress: The mechanism specified within the Type of Occurrence Classification System, Version 3.1 (TOOCS3.1) (ASCC 2008) to be used when disorders result from the person experiencing mental stress or being exposed to mentally stressing situations. This mechanism includes a group of categories that clarify those hazards that are recognised within the legal compensation frameworks of Australia as causing mental stress. This category of mechanisms is advised for use "when disorders result from the person experiencing mental stress or being exposed to mentally stressing situations" (p. 163). Specifically these mechanism sub-categories (which equate to the term psychosocial risks used in academia) potentially causing mental stress are:

- > Exposure to a traumatic event.
- > Exposure to workplace or occupational violence.
- > Work pressure.
- > Suicide or attempted suicide.
- > Other mental stress factors.
- > Work-related harassment and/or workplace bullying.
- > Other harassment (includes being a victim of sexual or racial harassment by a person or persons including work colleague/s).

Occupation: The occupation of the employee making the claim. In this publication the term Occupation is used to refer to Occupation Major Group as per the ASCO 2nd Edition (ABS 1997) unless otherwise stated.

Payment: Payments include:

- > Benefits paid to a worker or the worker's surviving dependants.
- > Outlays for goods and services such as medical treatment, funeral expenses, rehabilitation services.
- > Non-compensation payments such as legal costs, transport and interpreter services.
- > Common law settlements, which may incorporate estimates of future liability and indirect costs such as loss of productivity.

Precarious work: Refers to the type of employment that is insecure, uncertain, does not accrue paid leave entitlements, can be poorly paid and non-ongoing such as on temporary contracts. Employment could be for a specific period or task.

Presenteeism: Lost productivity that occurs when employees come to work but as a consequence of illness or other conditions are not fully functioning (Medibank Private 2008).

Prevalence: The number or proportion (of cases, instances, etc.) present in a population at a given time.

Psychosocial hazards: These are conditions or events that can potentially lead to mental stress. The World Health Organization (WHO) publications and the British Standards Institute identify 10 primary psychosocial hazards (British Standards Institution 2011; Leka & Jain 2010):

- > Job content
- > Work load and work place
- > Work schedule
- > Control
- > Environment and equipment
- > Organisational culture and function
- > Interpersonal relationships at work
- > Role in organisation
- > Career development
- > Home-work interface

The term hazards is considered to be interchangeable with the term stressors in the workplace context and refers to those conditions that could expose a worker to harm to their health or well being. There are a number of terms used in academic literature to refer to the same conditions including stressors, stress-related hazards and mechanisms.

Hazards in the workplace can be categorised as either physical (e.g. noise, hazardous chemicals) or psychosocial in nature (e.g. time pressure, bullying). Cox and Griffiths (2005) refer to psychosocial hazards as "those aspects of work design and the management of work, and their social and environmental contexts, which have the potential for causing psychological, social or physical harm" (p. 14).

Psychosocial risks: When an exposure to psychosocial hazards risks leading to the experience of mental stress.

Work-related stress: According to the WHO work-related stress is 'the response people may experience when presented with work demands and pressures that are not matched to their knowledge and abilities and which challenge their ability to cope.

Stress: Is what a person experiences when they are under significant psychological or physical pressure – real or perceived, acute or chronic (AIHW 2010).

Time lost: The number of compensated hours an employee was absent from work.

Workers' compensation claims:

- > Accepted or successful claims: Claims that have been determined to be compensable.
- > Rejected or unsuccessful claims: Claims that have been determined to be non-compensable. Reasons could be lack of evidence that an injury or disease was caused by work, or the contribution of work to the injury or disease is insufficient, or does not meet the criteria of accepted causes for compensation.
- > Pending: workers' compensation claims that have not yet been determined by respective schemes.

5

References

- Australian Bureau of Statistics and Statistics New Zealand (1993). Australian and New Zealand Standard Industrial Classification 1993 ANZSIC. Canberra and Wellington: ABS and Statistics New Zealand. (ABS cat. no. 1292.0).
- Australian Bureau of Statistics (1997). ASCO—Australian Standard Classification of Occupations, second edition. (ABS cat. no. 1220.0) Canberra: ABS. (Referred to throughout this report as 'ASCO')
- Australian Bureau of Statistics (2006). Work-related Injuries 2005–06. ABS cat. no. 6324.0. Canberra: ABS.
- Australian Bureau of Statistics and Statistics New Zealand (2006). Australian and New Zealand standard industrial classification 2006 ANZSIC. Canberra and Wellington: ABS and Statistics New Zealand. (ABS cat. no. 1292.0) (Referred to throughout this report as 'ANZSIC').
- Australian Bureau of Statistics (2010). Work-related injuries 2009-10. ABS cat. no. 6324.0. Canberra: ABS.
- Australian Bureau of Statistics (2012). Australian Social Trends. ABS cat. no. 4102.0. Canberra: ABS.
- Australian Institute of Health and Welfare (2010). Australia's Health 2010. Cat. no. AUS 122. Canberra: AIHW.
- Australian Safety and Compensation Council (2008). Type of Occurrence Classification System 3rd Edition Revision 1. Canberra: Commonwealth of Australia.
- British Standards Institution (2011). Guidance on the management of psychosocial risks in the workplace. PAS 1010. London: British Standards Institution.
- Cotton P (2008). Psychological injury in the workplace. Australian Psychological Society. InPsych April 2008. Viewed 7 September 2010 <<http://www.psychology.org.au/publications/inpsych/psych_injury/>>
- Cox T & Griffith A (2005). The nature and measurement of work-related stress: theory and practice. In JR Wilson & N Corlett (Eds), *Evaluation of Human Work* (3rd ed.). London: CRS Press.
- Cox, T (2011). Psychosocial and organisational risks to employee health and safety (unpublished), presentation delivered at Safe Work Australia Seminar, Canberra, April 2011.
- Medibank Private (2008). The cost of workplace stress in Australia. Viewed 12 December 2012 < <http://www.medibank.com.au/Client/Documents/Pdfs/The-Cost-of-Workplace-Stress.pdf> >
- Ford S (2004). Workplace Stress: environmental and individual factors. Australian Psychological Society. Viewed 20 September 2010 <<http://www.psychology.org.au/publications/inpsych/stress/>>
- Guthrie R, Ciccarelli M & Babic A (2010). Work-related stress in Australia: the effects of legislative interventions and the cost of treatment. *International Journal of Law and Psychiatry*, 33:101–115.
- House of Representatives Standing Committee on Education and Employment (2012). Workplace Bullying: We just want it to stop. Viewed 7 December 2012 < http://www.aph.gov.au/Parliamentary_Business/Committees/House_of_Representatives_Committees?url=ee/bullying/report.htm>
- Institute for Work & Health (2009). Issue briefing: Workers' compensation and the business cycle. Canada. Viewed 6 December 2012 <<http://www.iwh.on.ca/briefings/business-cycle>>
- Kuper H & Marmot M (2003). Job strain, job demands, decision latitude, and risk of coronary heart disease within the Whitehall II study. *Journal of Epidemiology and Community Health*, 57:147-53.

- LaMontagne AD, Sanderson K & Cocker F (2010a). Estimating the economic benefits of eliminating job strain as a risk factor for Depression. Viewed 18 December 2012 <<http://www.vichealth.vic.gov.au/Programs-and-Projects/Economic-Participation/Job-Strain.aspx>>
- LaMontagne AD, Keegel T, Louie AM & Ostry A (2010b). Job stress as a preventable upstream determinant of common mental disorders: A review for practitioners and policy-makers. *Advances in Mental Health*, 9(1):17-35.
- Leka S, Griffiths A & Cox T (2003). *Work Organisation & Stress*. Geneva: WHO. Viewed 6 December 2012 <http://www.who.int/occupational_health/publications/en/oehstress.pdf>
- Leka S & Jain A (2010). Health impact of psychosocial hazards at work: an overview. Geneva: World Health Organization. Viewed 6 December 2012 <http://www.who.int/occupational_health/publications/hazardpsychosocial/en/index.html>
- Lifeline Australia (2009). National Stress Poll: Topline Report. (Orima Research)
- Noblet A & LaMontagne AD (2006). The role of workplace health promotion in addressing job stress. *Health promotion international*, 21(4):346.
- Rick J, Thomson L, Briner RB, O'Regan S & Daniels K (2002). Review of existing supporting scientific knowledge to underpin standards of good practice for key work-related stressors - Phase 1, Health & Safety Executive, Research Report 024, HSE Books.
- Safe Work Australia (2012a). Australian Work Health and Safety Strategy 2012–2022. Viewed 8 November 2012 <<http://www.safeworkaustralia.gov.au/sites/SWA/News/Pages/TN31102012a.aspx>>.
- Safe Work Australia (2012b). *Compendium of Workers' Compensation Statistics Australia 2009-10*. Canberra: Safe Work Australia.
- Safe Work Australia (2012c). Comparison of workers' compensation arrangements in Australia and New Zealand. Viewed 18 December 2012 <<http://www.safeworkaustralia.gov.au/sites/swa/about/publications/pages/comparison2011>>
- van Wanrooy B, Wright S, Buchanan J, Baldwin S & Wilson S (2009). *Australia at work: in a changing world*: Workplace Research Centre. Viewed 18 December 2012 <http://sydney.edu.au/documents/future_students/1259186125-australia-at-work-in-a-changing-world.pdf>

