



Risk of work-related injury or illness among Health Industry workers

The Health & Community Services Industry has been identified as a priority industry under Safe Work Australia's National Occupational Health & Safety Strategy. This is because this industry has both a high incidence rate of workplace accidents or illnesses and a high share of employment. The incidence rate for serious injuries is higher than the rate for all industries, at 14.4 claims per one thousand employees compared to 13.5 claims per one thousand employees for all industries.

The Health & Community Services Industry accounted for 12 per cent ($n=16,030$) of all serious claims, despite comprising 11 per cent ($n=1,078,000$) of the total Australian workforce. This industry is also highly feminized (80 per cent of all employees are women) and work revolves around provision of support for others. This results in high levels of stress-related injury, which is often disguised through the taking of annual or sick leave. Hence incidence of serious injury is likely to be under-reported. Related to this, the risk of injury or illness appears to be 'normalised' as 'just part of job'.

Factors associated with workplace injury have been identified in actual workers' compensation injury data and in the literature more generally. These factors can be grouped as including work organisational factors (such as workplace size and employment arrangements), social relations of work (including work intensification, workplace participation and management-employee relations) and demographic factors (whether certain social groups are at greater risk than others, i.e. young men, older workers, those from non-English speaking backgrounds).

While actual OH&S injury data presents an indisputable outcome measure of workplace safety, what influences a worker's feeling of safety in the workplace has also been utilized as a measure of the real risk to which workers are exposed (Fleming et al 1998).¹

Therefore, in order to better understand factors influencing workplace safety cultures, Health & Community Service Industry workers in the *Australia at Work* study² were asked to respond via a five point agree-disagree scale to the following statement:

'I am confident that I'm not going to get injured or sick as a result of my work'

In 2007, **one-in-four (25.3 per cent)** workers in the Health & Community Services Industry felt at risk of a work-related injury or illness; higher than the rate among the general workforce (17.1 per cent).

Modelling of the first wave of the data (2007) was undertaken to obtain a better understanding of the relative contribution of three key aspects to Health & Community Service Industry workers' perception of risk: **workplace characteristics, social relations of work and demographic factors**³.

Workplace characteristics explain approximately **15 per cent** of the variance in response to fear of workplace injury/illness among workers in the Health & Community Services Industry (Appendix One, Table A.2).

Where, specifically:

- **Little difference** was found between fear of injury between **direct health & community services workers and allied workers** in the Industry.
- Compared to managers, **professionals** (such as nurses, speech therapists, counsellors) are **3.2 times more likely to fear injury**.
- **Casuals** employed in direct health or community services roles were almost **twice as likely to fear injury** compared to permanents.
- The structure of shifts appears to influence risk perception. Working **night shifts and weekends** were both associated with **higher fear of**

¹ See for example, Fleming, Flin, Mearns and Gordon (1998), 'Risk perceptions of offshore workers in UK Oil and Gas Platforms', *Risk Analysis*, Vol. 18, No. 1, pp167-176

² The *Australia at Work* study is being conducted by the Workplace Research Centre at the University of Sydney. The project is funded by the Australian Research Council's Linkage Grant scheme and the industry partner is Unions NSW. Further financial support is provided by CFMEU Energy & Mining Division, CFMEU ACT Branch, NSW Nurses' Association, the Police Federation of Australia, the SDA, the CEPU, the QLD Nurses Federation and the Nurses Federation (Victorian Branch). *The study* is a five-year longitudinal telephone survey of people who were aged 16 to 58 years and in the Australian labour force in March 2006 (i.e. prior to the implementation of the *Work Choices* legislation on 27 March 2006). New entrants and re-entrants to the labour force after March 2006 were not 'in-scope' for the study.

³ Information in this factsheet is an extract from a paper by Fattore, Wright, Moensted & Scott-Ladd (forthcoming). The full paper is available from the authors upon request.

injury for all workers in the Health & Community Services Industry and among direct workers in the Industry (**3.45 and 3.70 times higher** respectively than those not working night shifts or weekends).

- Direct health & community services workers on **rotating shifts** were also more likely to fear being injured (**1.72 times** more likely than those on fixed shifts).

Social relations of work explain the most variance of the three dimensions, explaining approximately **25 per cent** of the variance within the Health & Community Services Industry and **28 per cent** of the variance among direct Health & Community Service workers (Appendix One, Table A.3). Where, specifically:

- Fear of injury is **3.32 times higher** among those in **low trust environments** compared to those who have trust in their managers. Among **direct Health & Community Services workers**, fear of injury was **5.07 times higher** among those in **low trust environments**.
- Being a **union member** increases perceived risk among those in the Industry by **1.89 times** compared to non-union members. This suggests that unions in the Health & Community Services Industry play an important role in providing avenues for members to raise workplace safety with management.
- Those in the Industry who do not feel employees are **treated fairly** in their workplace are **twice as likely** to fear work-related injury or illness.

Demographic characteristics explain a smaller amount of the variance in risk perception compared to the job design and relational aspects of work, explaining on **7 per cent** of variance in risk of work-related injury/illness among workers in the Health & Community Services Industry (Appendix One, Table A.4). Where, specifically:

- **Prime-aged workers** (25 to 44 years) are **less likely** to fear being injured despite this age group having the highest actual incidence rates of injury.
- **Females** are **twice as likely** to fear being injured as males in the Industry. This may reflect **gender segregation in roles within the industry**. For example, women are more likely to dominate direct service roles and men are more likely to be found in management roles.
- Workers in the Industry who are experiencing **income stress** are **twice as likely** as those not experiencing such stress to fear being injured. This may reflect the increased exposure to risk of certain **lower paying jobs**.
- Workers from **Culturally or Linguistically Diverse backgrounds (CALD)** also have increased levels of perceived risk of injury or illness.

What do our findings suggest?

The **highly feminized caring and support work** undertaken by workers within this Industry has **not typically been viewed as 'dangerous' work**. Workers' compensation injury data presents a different picture. As does the findings from the *Australia at Work* study; where a higher proportion of workers in the Health & Community Services Industry feel at risk of a work-related injury or illness than the general workforce.

It is the **way delivery of service is organised** in the Health & Community Services Industry that increases risk of injury or illness. **Occupation type, long work hours, precarious employment and shift structure** - the material conditions of workplace relations - most fully explain the variation in perceived risk. However workers in this Industry play down or **'normalise' the risks associated with their work**.

Given the **correlation between perceived and actual risk of injury/illness**, we can then tentatively surmise that these **structural and institutional qualities of work** are also associated with **actual risk on injury/illness** in this Industry.

Consequently, conventional hazard reduction strategies may not be as effective in this Industry as they may be in more conventionally 'hazardous' industries such as Mining, Manufacturing and Construction. In this Industry - that is female-dominated and characterised by low pay - **workplace safety interventions are required at the work arrangements level**.

Much of the research around workplace safety focuses on the responsibilities of individuals close to the incident, rather than investigating the underlying factors contributing to the injury. This reinforces an **individualisation of responsibility for safety**. Our findings suggest that **management commitment and leadership more broadly** (thus including an important role for leaders in Health unions) are **key requirements for the improvement of workplace health and safety**. This includes not only technical aspects of work (such as implementing safety policies) but also **fostering trust and consultative relationships with staff**. When we consider this within the framework of workplace safety interventions, the results suggest that **safe workplaces are those that effect primary or preventative strategies aimed at eliminating risk**.

Further, safe workplaces are predicated on establishing **decent workplace conditions and developing workplace relations that support employees**. **Low trust working environments** negatively affect employees feeling of safety and diminish the importance placed on safety by employees.

Our findings indicate that safety initiatives are only likely to positively affect perceived safety if there is a basis of **trust and a perception of fairness in the workplace**. Therefore, **involving workers in safety discussions and procedures** is important to worker perceptions of - and actual - workplace safety.

Appendix One Table A.1: Dependent variables in models

| Variable name | Response categories (Reference category) |
|---|---|
| 1. Individual worker characteristics | |
| Age (years) | 16 to 24 years (Ref), 25 to 44 yrs, 45 to 54 yrs, 55 yrs + |
| Gender | Male (Ref), Female |
| Children under 16 yrs in household | Yes, No (Ref) |
| Highest education qualification | Less than Year 12 (Ref), Year 12, Graduate diploma or trade qualification, Degree or above |
| Geographic location | Metropolitan, Regional (Ref) |
| Cultural Background | English spoken at home (Ref), Language other than English spoken at home |
| Job tenure | One year or less, Two to four years, Five to ten years, 10 years or more (Ref) |
| Living Standards | Difficulty coping, Coping, Living comfortably (Ref) |
| 2. Job design | |
| Occupation Type | Manager (Ref), Professional, Technical/trade workers, Community & Personal Service workers, Clerical & Administrative workers, Sales workers, Machinery Operators & Drivers and Labourers |
| Skill level | Low skill (ANZSCO skill levels 4 & 5), high skill (Ref) (ANZSCO Skill levels 1, 2 & 3) |
| Usual weekly hours of work in main job | 1 to 15hrs (Ref), 16 to 34 hrs, 35 to 40 hrs, 41 to 49 hrs, 50 or more hrs |
| Form of employment | Permanent (Ref), fixed term contract, casual; self-employed |
| Sector | Private, Public; Not for Profit (Ref) |
| Workplace size | Less than 20 employees (Ref), 20 to 100 employees, More than 100 employees |
| Evening work | Yes, No (Ref) |
| Extra Hours | Yes, No (Ref) |
| Night shift | Yes, No (Ref) |
| Weekend work | Yes, No (Ref) |
| Rotating shift | Yes, No (Ref) |
| Irregular schedule | Yes, No (Ref) |
| 3. Social relations at work | |
| Hours preferences | Like to work fewer hours, happy with hours (Ref), like to work more hours |
| Work intensification (EP) | Agree 'More and more is expected of me for the same amount of pay', All other responses (Ref) |
| Employee fairness (EP) | Disagree 'Employees are treated fairly in my workplace', all other responses (Ref) |
| Management consultation (EP) | Disagree 'Management at my workplace consult staff about issues affecting staff', all other responses (Ref) |
| Trust in managers (EP) | Disagree 'Managers at my workplace can be trusted to tell things they way they are', all other responses (Ref) |
| Control over working hours (EP) | Disagree 'I have control over my working hours', all other responses (Ref) |
| Job security (EP) | Agreement 'There's a good chance I will lose my job or be retrenched within the next 12 months', all other responses (Ref) |
| Union membership | Union member, not a union member (Ref) |

Ref = reference category

EP = employee perception

Source: Australia at Work, Wave 1, 2007 data

Population: Health & Community Services Industry employed persons only ($n=751$ includes employees and self-employed in the Health & Community Services Industry including $n=150$ direct health or community services workers)

Appendix One Table A.2: Workplace Characteristics – Odds-Ratios by Health & Community Services Industry, 2007

| | | Model I Health & Community Services Industry | Model II Direct Health or Community Services Worker |
|---------------------------|--------------------------------------|---|--|
| <i>Occupation Type</i> | Professionals | 3.21 (0.54)* | |
| | Technicians and Trade Workers | 1.88 (0.67) | |
| | Community and Personal Workers | 2.74 (0.65) | |
| | Clerical and Admin Workers | 1.61 (0.71) | |
| | Sales Workers | n/a | |
| | Machinery Operators and Drivers | n/a | |
| | Labourers | 1.51 (0.95) | |
| | Managers (ref) | | |
| <i>Health worker</i> | Direct health work | 1.43 (0.38) | |
| | Allied occupation (ref) | | |
| <i>ANZSCO Skill</i> | Low Skill | 1.23 (0.15) | 1.15 (0.16) |
| | High Skill (ref) | | |
| <i>Hours – Main Job</i> | 16 to 34 hours | 1.16 (0.32) | 0.99 (0.35) |
| | 35 to 40 hours | 1.27 (0.35) | 1.21 (0.38) |
| | 41 to 49 hours | 1.64 (0.45) | 1.69 (0.48) |
| | 50 hours or more | 1.05 (0.53) | 1.03 (0.56) |
| | 1 to 15 hours (ref) | | |
| <i>Form of Employment</i> | Fixed term | 0.38 (0.52) | 0.44 (0.53) |
| | Casual | 1.61 (0.28) | 1.99 (0.31)* |
| | Self-employed | 1.00 (1.26) | 0.96 (1.26) |
| | Permanent (ref) | | |
| <i>Sector</i> | Private Sector | 1.18 (0.28) | 1.04 (0.30) |
| | Public Sector | 1.91 (0.26)* | 1.69 (0.28) |
| | Not-for-profit (ref) | | |
| <i>Workplace Size</i> | 20 to 100 staff | 0.70 (0.27) | 0.65 (0.30) |
| | More than 100 staff | 1.14 (0.27) | 1.18 (0.29) |
| | Less than 20 staff (ref) | | |
| <i>Evening Work</i> | Works Evenings | 0.76 (0.26) | 1.22 (0.29) |
| | Doesn't work evenings (ref) | | |
| <i>Extra Hrs/Overtime</i> | Works extra hours | 1.14 (0.23) | 0.97 (0.25) |
| | Doesn't work extra hours (ref) | | |
| <i>Night Shift</i> | Working night shift | 3.45 (0.58)* | 3.70 (0.61)* |
| | Not working night shift (ref) | | |
| <i>Irregular schedule</i> | Working irregular schedule | 0.68 (0.43) | 0.69 (0.44) |
| | Not working irregular schedule (ref) | | |
| <i>Rotating Shift</i> | Working rotating shift | 1.56 (0.25) | 1.72 (0.26)* |
| | Not working rotating shift (ref) | | |
| <i>Work weekends</i> | Work weekends | 2.56(0.27)** | 1.84 (0.32) |
| | Not working weekends (ref) | | |

Reference category is **I am Confident I am not going to get injured at work**

Figure in brackets is standard error for parameter estimate. *Sig. at 0.05 **Sig at 0.005 ***Sig. at 0.000
Nagelkerke R2: Model I = 0.18: Model II = 0.17

Appendix One Table A.3: Social Relations of Work - Odds-Ratios by Health & Community Services Industry, 2007

| | | Model I Health & Community Services Industry | Model II Direct Health or Community Services Worker |
|------------------------|---|--|---|
| Hour Preferences | Like to work fewer hours | 0.79 (0.34) | 0.96 (0.41) |
| | Like to work more hours | 1.73 (0.37) | 2.00 (0.41) |
| | Happy with hours (ref) | | |
| Work intensification | More expected for same pay | 1.28 (0.26) | 1.08 (0.29) |
| | No (ref) | | |
| Employer fairness | Employees not treated fairly | 1.98 (0.34)* | 1.68 (0.40) |
| | Employees treated fairly (ref) | | |
| Workplace Consultation | Managers don't consult | 1.73 (0.31) | 1.71 (0.35) |
| | Managers consult (ref) | | |
| Trust | Managers at my workplace can't be trusted | 3.32 (0.33)*** | 5.07 (0.38)*** |
| | Managers can be trusted (ref) | | |
| Work hours control | No control over working hours | 1.05 (0.26) | 1.04 (0.30) |
| | Control over working hours (ref) | | |
| Job Security | Insecure in job | 1.08 (0.46) | 1.29 (0.53) |
| | Feel secure in job (ref) | | |
| Union Membership | Union Member | 1.89 (0.24)* | 1.59 (0.26) |
| | Not Union Member (ref) | | |

Reference category is **I am Confident I am not going to get injured at work**

Figure in brackets is standard error for parameter estimate. *Sig. at 0.05 **Sig at 0.005 ***Sig. at 0.000, Nagelkerke R2: Model I = 0.27; Model II = 0.28

Appendix Table A.4: Demographic Characteristics of Workers - Odds-Ratios by Health & Community Services Industry, 2007

| | | Model I Health & Community Services Industry | Model II Direct Health or Community Services Worker |
|---------------------|-------------------------------------|--|--|
| Education Level | Year 12 | 0.72 (0.48) | 1.10 (0.57) |
| | Trade qual./Diploma | 1.69 (0.31) | 1.48 (0.38) |
| | Bachelor Degree or above | 1.41 (0.32) | 1.39 (0.38) |
| | Less than Year 12 (ref) | | |
| Age (years) | 25 to 44 | 0.40 (0.41)* | 0.43 (0.44) |
| | 45 to 54 | 0.45 (0.42) | 0.45 (0.45) |
| | 55 or above | 0.60 (0.48) | 0.61 (0.53) |
| | 16 to 24 (ref) | | |
| Job Tenure | One year or less | 0.80 (0.33) | 0.82 (0.36) |
| | Two to four years | 0.98 (0.27) | 1.06 (0.29) |
| | Five to ten years | 0.80 (0.27) | 0.84 (0.29) |
| | More than ten years (ref) | | |
| Living Standards | Difficulty in living standards | 1.73 (0.27)* | 1.46 (0.30) |
| | Coping | 1.03 (0.21) | 1.09 (0.23) |
| | Living comfortably (ref) | | |
| Children under 16 | Yes | 1.29 (0.22) | 1.28 (0.24) |
| | No (ref) | | |
| Geographic location | Metropolitan | 0.95 (0.20) | 0.98 (0.21) |
| | Regional (ref) | | |
| Sex | Female | 1.84 (0.27)* | 1.63 (0.30) |
| | Male (ref) | | |
| CALD | Language other than English at home | 1.52 (0.33) | 1.74 (0.37) |
| | English at home (ref) | | |

Reference category is **I am Confident I am not going to get injured at work**

Figure in brackets is standard error for parameter estimate.

*Sig. at 0.05 **Sig at 0.005 ***Sig. at 0.000, Nagelkerke R2: Model I = 0.07; Model II = 0.05