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JOB STRESS
CAUSES, IMPACT AND INTERVENTIONS
IN THE HEALTH AND COMMUNITY SECTOR

REPORT NOVEMBER 2006
FOREWORD

COMMISSIONED RESEARCH FINAL REPORT: JOB STRESS: CAUSES, IMPACT AND INTERVENTIONS IN THE HEALTH AND COMMUNITY SERVICES SECTOR

This research was commissioned and funded by WorkCover NSW with partial funding provided by the former National Occupational Health and Safety Commission (NOHSC) – now the Australian Safety and Compensation Council (ASCC).

The overall aim of this study was to provide WorkCover with contemporary evidence based options for the effective prevention and management of psychological injuries. While the key notion that an organisational approach to stress prevention/management is supported, the model presented in this report has been assessed as being generic, providing a broad framework from which it is now necessary to develop a practical improvement program that can be trialled in the workplace.

In order to develop such a practical stress management program, WorkCover is commissioning a demonstration program to be undertaken in targeted health and community services workplaces. This program will be informed by the ‘job stress’ research project, an ongoing review of the literature, and consultation with stakeholders and academics. As a primary intervention, the program will focus on improving various work based factors as the key to preventing and improving management of work related psychological injury.
JOB STRESS: CAUSES, IMPACT AND INTERVENTIONS IN THE HEALTH AND COMMUNITY SERVICES SECTOR

Prepared for WorkCover New South Wales

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Important Notice

This report is confidential and was prepared exclusively for the client named above. It is not intended for, nor do we accept any responsibility for its use by any third party.

Disclaimer

This research was commissioned by WorkCover NSW and was partially funded by the National Occupational Health and Safety Commission. The research conclusions are those of the authors and any views expressed are not necessarily those of WorkCover NSW or the National Occupational Health and Safety Commission.

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**Introduction**

The Health and Community Services sector (HCS) is a high-risk sector for job stress with negative consequences for individuals, the industry and the wider community. This report details the findings of a project to investigate the causes and impacts of job stress in the sector and to develop a model for effective interventions. The project was prompted by recommendations 14 and 62 of the November 2002 Workplace Safety Summit that called for research into workplace stress and its impacts in the health industry. As part of a broader research strategy intended to fulfill the government’s response to these recommendations, WorkCover NSW released a project brief: 'Work-related Stress: Causes, Impact and Solutions' in March 2004. This is the report on that project.

The project was undertaken by a consortium of consultants under the aegis of the Work and Stress Research Group, University of South Australia. The consortium was able to offer a broad range of complementary skills and experience in organisation-based, qualitative research in occupational health, safety and injury management (OHSIM), as well as in the psychosocial working environment. Members of the consortium were:

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**Research aim**

The overall aim of the research study was to provide WorkCover NSW with contemporary, evidence-based options for the effective prevention and management of psychological injuries.

**Research objectives**

The specific objectives of this research project were to:

1. Identify the key causes, impacts and predictors of work-related job stress in the health and community service industry.
2. Identify prevention/injury management themes and guiding principles in relation to work-related job stress.
Develop and recommend a specific evidence-based counter-measure model that encompasses job stress prevention and early injury management, appropriate for the Community and Health Service industry in NSW.

Develop an evaluation method (including performance measures), for ongoing formative and summative assessment of the impact of the recommended strategy.

A clear message to us from stakeholders of this research is the desire, indeed demand, to de-medicalise the area of psychological injury. An outcome of the stakeholder workshop (discussed later in this report) was agreement to change the language in this research and in this report from psychological injury to job stress. Therefore, this is the term that is used throughout this work.

Job stress is a widespread concern across all employment sectors and occupational levels, and is a commonly reported cause of occupational illness and associated organisational outcomes (e.g., lost work days, turnover, workers’ compensation claims). In Europe, stress-related problems are the second most commonly reported cause of occupational illness, following musculoskeletal complaints. Roughly one fourth of workers in the EU reported job stress as affecting their health in the 2000 European Foundation survey. Smaller—but still significant percentages—reported having experienced other adverse psychosocial hazards in the previous year, including bullying, unwanted sexual attention, and acts of violence from people at work or from other people. Comparable data are not available for Australian populations, however, they are likely to be similar to European estimates. Further, there is evidence that job strain, the combination of high job demands with low job control and the most widely studied job stressor, has been increasing in prevalence in Europe over the last decade. Job stress and other psychosocial hazards, affecting the full range of occupational levels, are widely prevalent and represent a growing concern.

Epidemiological evidence indicates that job stress is rapidly emerging as the single greatest cause of work-related disease and injury. Compensated ‘psychological injury’ and other stress-related claims, despite their rise in Australia in recent years, represent only a small fraction of job stress-related adverse health outcomes. Job strain, the most widely studied measure of job stress has been increasing in prevalence in Europe and may also be increasing in the US. Comparable population-based job stress surveillance data is not available in Australia, but trends are likely to be similar to other OECD countries.

The health and community service sector (HCS) is a high-risk sector for job stress with negative consequences for both the individual and the organisation. In the broader literature there is strong evidence for the propositions that work organisation factors predict adverse health and other

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2 Ibid.
outcomes, even after controlling for other possible causes of the same outcomes such as socioeconomic status or personality characteristics. There is also significant evidence that various stress prevention or intervention strategies have demonstrated effectiveness in the prevention or control of work-related stress.

A steering committee was established by WorkCover NSW to assist this project achieve its objectives. Steering Committee members were:

- Dr Ian Adair, Medical profession representative
- Ms Frances Waters, NSW Department of Health
- Ms Jutta Sund, NSW Department of Health
- Mr Fred Hollis, Department of Community Services
- Dr Julian Parmegianni Psychiatrist, Chambers Medical Specialist
- Dr John Toohey, The Productive Edge
- Ms Mary Hawkins, WorkCover NSW Injury Management Branch
- Mr Simon Scarr, WorkCover NSW Injury Management Branch
- Ms Mary McLeod, WorkCover NSW HACS Team
- Mr Brad Groves, WorkCover NSW, Strategy and Policy Division
- Ms Marina Melnikoff, WorkCover NSW, Strategy and Policy Division
- Ms Julie Hill, Office of the ASCC Dept. of Employment and Workplace Relations
- Mr Neale Spencer, Project Manager, WorkCover NSW, Strategy and Policy Division.

We thank the members of the Steering Committee for their efforts in helping to make this project a success. Special thanks must go to Neale Spencer for his management of this project on behalf of WorkCover NSW.

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Project method

This project was conducted in five stages that comprised:

- The exploration and analysis of key literature
- Assessment of the effectiveness of researched models and strategies with the purpose of identifying a suitable model to trial in NSW
- A needs analysis of key stakeholders and providers, and
- The development of an evaluation framework, including performance measures and for the recommended strategy.

STAGE 1—REFERENCE GROUP

In the first instance we sought assistance from the reference group, already established by WorkCover NSW, to gain access to data and organisations for later stages of the research, to provide us with information about local conditions, to discuss the findings of the project with us and to read and discuss our draft report and recommendations. We were able to work collaboratively with this group and we thank them for their input to the project. We provided a detailed project plan that outlined the method, suggested meeting times, milestones and delivery schedule. At an initial meeting with the reference group we discussed the detail of the project and its operating context.

STAGE 2—LITERATURE REVIEW

To understand the causes, impact and solutions of job stress in the health and community service (HCS) sector more fully we undertook:

- A review of the literature to determine the causes and impact of stress in the HCS sector
- A literature review of job stress intervention evaluation studies in the HCS sector, and
- Identification of job stress interventions currently being trialled in workplaces around Australia.

This brings together contemporary views from international research and practice. A summary of the literature review constitutes chapter 3 and the full literature review is attached as Appendix 1.

Published literature was accessed using a range of literature search engines (eg EBSCO Host search engine, psychlit, sociofile) as well as our international and national networks (eg International Congress Occupational Health, NIOSH, NOHSC). We also searched for “grey” literature and unpublished interventions by asking for cooperation from the jurisdictions and the public sector. Through them, we sought examples of successful prevention and early intervention management, and the ingredients of these to develop a best option model. We ran an advertisement in the Weekend Australian calling for submissions from industry on intervention models used and evidence for success. In particular, we sought this information from the health and community service sector. These data were incorporated into the literature review as
examples of practice within Australia. The literature review examines what is known about the causes and impacts of job stress generally and in the HCS sector and reflects on how to apply this review of evidence to inform practice.

**STAGE 3—NEEDS ANALYSIS OF KEY STAKEHOLDERS**

The issue of job stress is contentious, therefore, it is important to frame discussions about possible interventions as forward-looking in order to avoid defensiveness, a sense of blame and fault, and people taking entrenched positions. Future Inquiry, a method developed and tested previously in many settings by A Shaw and V Blewett, was used to achieve this efficiently and effectively. Future Inquiry was used in this project because it embodies the principles of participation and respect that underpin systems approaches. The method adapts existing participative planning techniques, building on appreciative inquiry and future search methodologies.

A **appreciative inquiry** aims to examine new directions for action by looking at what works well now, rather than problem solving. Problem solving tends to be slow, is backward looking in the search for problem causes, is about closing gaps rather than looking for fresh ideas, and tends to generate defensiveness (your fault, not mine) that reinforce power and control agendas. A focus on positive stories and ideas generates a respect for what has been done well, identifies the part that individuals play in their organisation, reinforces accepted values and invites an affirmation and expansion of ideas.

**Future searching** is a collaborative process aimed at having the ‘whole system’ in the room so that many perspectives are brought together to work on a specific and task-focused agenda. It is a collaborative process that encourages creativity, commitment to actions that are grounded in reality, the formation of new working relationships and voluntary cooperation. The process gives participants the opportunity to share leadership and engage as peers in robust discussion, in an environment focused on the future.

Future Inquiry was used in this project to examine new directions for action by looking for fresh ideas and acknowledging what works well at present. A focus on positive stories and ideas generated respect for what has been done well, identified the parts that individuals play in their organisations, articulated accepted values, and invited an affirmation and expansion of ideas. This approach yielded insights that were grounded in the experience of stakeholders, reflecting the reality of everyday working life, and identifying existing strengths as well as needs.

In this instance the **Future Inquiry workshop** was a day-long workshop involving representatives of key stakeholder groups. We sought the assistance of the reference group to comprehensively identify stakeholders and the participants in this workshop. In addition, the workshop was informed by the findings of the literature review. Stakeholders included

- Unions
- Employer representatives

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The aims of the workshop were:

1. To determine the needs of stakeholders from an intervention model for job stress
2. To consider the consequences of the findings of the literature review for the intervention model to be developed, and
3. To develop an intervention framework for the model, including:
   - Principles for the model
   - Key features of the context for the model's application (e.g., industrial relations, political environment)
   - Criteria for choosing primary, secondary and tertiary intervention options
   - Factors that support and hinder good practice and possible strategies for dealing with them.

Over 60 participants were involved. A particular strength of our approach was that it brought together tertiary intervention stakeholders and those focused more on primary and secondary strategies. Activities identified stakeholder positions and needs, and progressively integrated these into intervention development. The Future Inquiry process was designed to help build commitment to prevention strategies from the beginning. It also provided a means for differences between stakeholders to be acknowledged without causing conflict.

A critical part of this stage was to develop an evaluation method grounded in meeting the needs of stakeholders. We addressed the following three questions:

1. What is the rationale of the intervention you want to evaluate?
2. What are the specific evaluation questions about this intervention?
3. What are the appropriate methods and tools to answer these evaluation questions?

The evaluation method is discussed in Chapter 6.

STAGE 4—ANALYSE DATA AND PREPARE REPORT

During this stage of the research we analysed data from the stakeholder workshop and incorporate the findings from stakeholders into the literature review. We were able to tease out common threads, outlining concerns and improvement strategies that were used to develop a model for action. The model for action is included in this report.

STAGE 5—PRESENT FINDINGS

The findings and the outcomes of the research were presented to the Steering Committee on 31 January 2006.
Key causes, impact and predictors of job stress in HCS

This chapter summarises the findings of the literature review undertaken for the project to identify:

1. Key causes and predictors of job stress in the HCS sector
2. The impacts of job stress in HCS, and
3. Key features of effective interventions to prevent or control job stress, particularly in the HCS sector.

In the literature on job stress there is strong evidence for two major propositions. Firstly, that work organisation factors predict strain and adverse health and other outcomes, even after controlling for other possible causes of the same outcomes such as socioeconomic status and personality characteristics. Secondly, that various stress prevention or intervention strategies have demonstrated effectiveness in the prevention or control of job stress. In this project we have focused on these propositions as they apply to the health and community services (HCS) sector. The rest of this chapter summarises the evidence from the literature for these two propositions.

The terms work stress, job stress and occupational stress are used interchangeably and are often used to describe an area of practice or study focusing on psychosocial aspects of work that detrimentally affects worker health. As research in the area has grown, terminology in the area has become more precise and agreed upon. We have chosen to use the term job stress, which refers to the harmful physical and emotional responses that occur when the requirements of the job do not match the capabilities, resources or needs of the worker.

There is general agreement in the literature that a stressor is a predictor of stress and a strain is a consequence of stress. Stressors may be physical or psychosocial in origin. Both types can affect physical and psychological health and may interact with each other. Physical stressors may include biological, biomechanical, chemical and radiological. Psychosocial hazards (stressors) are those aspects of work design and the organisation and management of work, and their social and environmental contexts, which have the potential for causing psychological, social or physical harm.

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Most research focuses on psychosocial stressors, as we have done. In addition, we have included evidence on bullying and violence at work.

Strain refers to reactions to the condition of stress. These reactions may be transitory, but short-term strains are presumed to have longer-term outcomes. Work-related strain may include psychological strain such as cognitive effects, inability to concentrate, and anxiety; behavioural strain such as the use of smoking or alcohol, and physiological strain such as increased hypertension. Enduring health outcomes may include poor psychological health, such as anxiety disorder; physiological disease such as cardiovascular disease, and behavioural problems such as alcoholism.

The results of the review of both Australian and international literature published about HCS since 1999 are very consistent and reveal that high demands (workload), low support, low control, low rewards, effort-reward imbalance and emotional (client) demands were the most important factors associated with strain and enduring health outcomes. Violent and aggressive incidents and bullying were also associated with stress outcomes. Evidence includes longitudinal studies, in which job stress measures taken at one point in time predict adverse outcomes measured subsequently. Specific stressors identified were:

- Work demands (particularly work load or pressure and insufficient time to complete scheduled work tasks)
- Emotional demands (including work-home conflict, relocation demands, lack of patients/peers/community understanding of work role, unrealistic client expectations, professional isolation due to institutional racism, emotional labour, traumatic work experience and violence from clients)
- Low control (low skill discretion, low participation in decision making)
- Imbalance between efforts expended and rewards received from work (so-called effort-reward imbalance)
- Low support (e.g., unsupportive supervisor)
- Role issues (e.g., role ambiguity, role conflict, conflict between personal goals and organisational goals), and
- Interpersonal conflict (e.g., bullying).

The reasons why such stressors may have increased in the HCS sector were suggested to be worldwide changes in the nature of work. Particularly relevant for the sector are increases in the levels of emotional and psychological demands (including cognitive demands) and a reduction in physical demands. The pace of work is increasingly dictated by consumers (clients/patients and so on) and there are increasing numbers of

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**Key causes and predictors**


workers employed in the service sector\textsuperscript{19}. These workplace changes have mirrored changes in the community and social work and human service practice frequently involves working with society’s most disadvantaged children, the poor, the aged and those in secure care, and is often accompanied by a high degree of trauma, distress, conflict and unhappiness for service-delivery recipients\textsuperscript{20,21,22}.

Aboriginal health workers in particular report unbearable levels of distress as they manage overwhelming community demands and are continuously exposed to trauma from high levels of illness, loss and grief in communities\textsuperscript{23,24}. The work of the GP has also been described as demanding and highly complex both interpersonally and cognitively, and GPs often work in social isolation from peers\textsuperscript{25,26}.

The epidemiological evidence indicates that job stress is rapidly emerging as the single greatest cause of work-related disease and injury. The cost of stress to workers, employers and society is enormous and serious negative impacts on worker health and well-being (cardiovascular disease, psychological distress, general mental health, depressive symptoms, psychiatric disorders, and suicide), the family (work family conflict), the organisation (absenteeism, reduced performance) and on society (public health costs, insurance costs) are well documented in the literature. Consistent with these high levels of stress, national and state figures show that the health and community services sector has the highest percentage of workers’ compensation claims (20% of the total) for psychological distress compared to any other sector\textsuperscript{27,28} (see Appendix 1). This is despite the fact that the HCS comprises only about 10% of the Australian workforce. Compensated ‘psychological injury’ and other stress-related claims, despite their rise in Australia in recent years, represent only a small fraction of job stress-related adverse health outcomes\textsuperscript{29}. Table 1 lists the range of health outcomes of job stress that have been reported in the literature.

\begin{table}
\centering
\caption{Range of health outcomes of job stress reported in the literature.}
\begin{tabular}{|l|l|}
\hline
Outcomes & Literature References \\
\hline
Cardiovascular disease & Merllie, D. and Paoli, P. 2001 Ten years of working conditions in the European Union: Summary, Ireland: European Science Foundation. \\
\hline
\hline
\hline
\hline
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\hline
Public health costs & 2003a ‘Statistical Review 2002-2003’: WorkCover Corporation South Australia. \\
\hline
\hline
\end{tabular}
\end{table}
Table 1: Key stress response and health outcomes reported in the international and Australian literature

<table>
<thead>
<tr>
<th>Response/Others</th>
<th>Domain</th>
<th>Key Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Psychological</strong></td>
<td>outcomes</td>
<td>§ emotional exhaustion</td>
</tr>
<tr>
<td></td>
<td></td>
<td>§ psychological distress</td>
</tr>
<tr>
<td></td>
<td></td>
<td>§ anxiety</td>
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<tr>
<td></td>
<td></td>
<td>§ depression</td>
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<tr>
<td></td>
<td></td>
<td>§ mood disturbance</td>
</tr>
<tr>
<td></td>
<td></td>
<td>§ lowered morale</td>
</tr>
<tr>
<td></td>
<td></td>
<td>§ job dissatisfaction</td>
</tr>
<tr>
<td></td>
<td></td>
<td>§ depersonalisation (feeling personally detached from the job)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>§ personal accomplishment</td>
</tr>
<tr>
<td></td>
<td></td>
<td>§ reduced quality of working life</td>
</tr>
<tr>
<td></td>
<td></td>
<td>§ reduced life satisfaction</td>
</tr>
<tr>
<td><strong>Physiological</strong></td>
<td>outcomes</td>
<td>§ physical health symptoms</td>
</tr>
<tr>
<td></td>
<td></td>
<td>§ fatigue</td>
</tr>
<tr>
<td></td>
<td></td>
<td>§ low back pain</td>
</tr>
<tr>
<td></td>
<td></td>
<td>§ protracted neuroendocrine (cortisol) reaction (stress hormone)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>§ cardiovascular disease</td>
</tr>
<tr>
<td><strong>Behavioural</strong></td>
<td>outcomes</td>
<td>§ absenteeism</td>
</tr>
</tbody>
</table>

Australian studies in the HCS sector report high percentages of workers reporting high levels of psychological strain (using the General Health Questionnaire-GHQ – a measure of psychological distress): ranging from 19% to 33% in different samples. These rates are nearly twice the rates reported in a national Australian sample (including workers) which showed using the GHQ that 10.4% are in the high to severe range of distress. Few studies report low levels of distress for health workers - for example rural volunteer ambulance officers levels are comparable with normative samples (10.4%) and emergency physicians report less anxiety and depression compared to the general population. Groups studied to date include radiographers, clergy, emergency medicine fellows, nurses, ambulance officers, social workers, nurses, podiatrists, allied health workers, ancillary staff, psychologists and general practitioners.

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34 Lewig, K. A. 2004 ‘Well-being and turnover intention in Volunteer Ambulance Officers’ School of Psychology, Adelaide: University of South Australia.
High stress among workers in the sector is not merely an individual burden but threatens both the maintenance of a viable and healthy workforce and the capacity to provide quality services. For example, one of the core ingredients of quality in general practice is the quality of the patient doctor relationship\textsuperscript{36}. Early research showed GP job satisfaction and feeling at ease were associated with openness to patients and more attention to the psychosocial aspects of complaints, whereas a lack of time and frustration were related to a decrease in the tendency to provide explanations to patients and to an increase in prescribing\textsuperscript{37}. Clinical decisions are increasingly made in the context of rapid throughput and time constraints and customer satisfaction with service quality is set to deteriorate as providers experience emotional exhaustion and depersonalisation (a tendency to treat clients as objects and distance oneself emotionally from one’s clients)\textsuperscript{38,39}.

Despite this serious range of impacts from job stress, a clear stimulus for the widespread activity in job stress intervention is the cost and increasing rates of workers’ compensation claims for psychological injury. This is nearly always mentioned first in documents as the rationale for an intervention, and almost always leads to tertiary and secondary intervention approaches. Whilst improvements in the management of injured workers are important (e.g. return to work), the approach is fundamentally flawed in terms of stress prevention in the workplace. The next chapter details evidence of what works.

To examine the second proposition (that various stress prevention or intervention strategies have demonstrated effectiveness in the prevention or control of job stress) we conducted a review of the most recent job stress intervention studies in the HCS sector. We found that primary preventive interventions (combining organisational level interventions such as job redesign/ restructuring, communication, training and education programs, participation and autonomy), led to improvements in both the work environment (e.g. reduced demands) and stress-related outcomes. Secondary interventions that are individually focused (e.g., employee coping skills, Cognitive Behaviour Therapy) can also reduce stress symptoms in the short-term. In summary, we found clear support for the proposition in the HCS sector: stress prevention interventions can reduce both stressors and stress-related outcomes.

Primary prevention addresses the sources of job stress and prevents it from occurring in the future. The goal is to reduce or remove job stressors (i.e. eliminate hazards at source) or improve resources (e.g. social support) and prevent employees from experiencing stress-related adverse effects on health. As such, primary preventive interventions target stressors at the level of the organisation and the physical work environment (see Figure 1). The evidence is clear: primary prevention is best. Examples of primary level preventions include improving organisational culture, changing employee workloads, job reengineering, job redesign, developing clear job descriptions to avoid role ambiguity, increasing worker involvement and participation in decision making, protecting workers from violent exposures.

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\textsuperscript{36} Tomlins, R. 1997 ‘Barriers to quality in general practice’, Medical Journal of Australia 167: 64.


\textsuperscript{39} Dormann, C. 2003 ‘Emotion work - Worth the trouble’ 11th European Congress of Work and Organisational Psychology, Lisbon.
(e.g. aggressive clients), policy development and maintenance, and redesigning the physical work environment.

Secondary level interventions focus on altering the way that individuals respond to stressors at work (including perception) and to improve their processes of coping with short-term stress responses. These interventions seek to either 1) help equip most or all employees with the knowledge, skills, and resources to cope with stressful conditions, or 2) target employees already experiencing negative short-term responses (symptoms) or other early signs of stress in order to prevent them from becoming more serious. These interventions may involve training for workers in the areas of health promotion or in psychological skills such as coping strategies, exercise, relaxation and meditation training. Very early intervention for those with stress symptoms, or for those reporting a ‘near miss’ incident could be considered secondary interventions.

Tertiary level interventions are directed at treating and assisting employees who have already been exposed to job stress and developed stress-related enduring health outcomes (such as ‘psychological injury’, depression, or coronary heart disease). These interventions include occupational rehabilitation services, counselling and employee assistance programs (EAP), and return to work programs. In Australian workplaces these are generally employed following a workers’ compensation claim for psychological injury.

Work stress interventions can also be categorised in terms of their target: being directed at the organisation, including features of the physical and psychosocial work environment (O), the individual level (I) or at the interface of the individual with the organisation (I/O).

Organisation-directed interventions mainly focus on changes in the work content and/or relations at work (e.g. job redesign/restructuring, communication). They aim to eliminate, reduce, or alter work stressors and are therefore mainly primary prevention. These interventions generally target all members of the organisation, or those in a particular job or category of job.

Individual/organisational interface interventions focus on changing the fit between the person and the organisation (e.g. clarifying an individual’s role in an organisation), and building resilience to specific stressors. The specific aim is to improve the employee’s functioning at work. These interventions are normally aimed at employees performing a certain task or only to employees who are showing signs of stress or are performing poorly. These interventions are mainly secondary interventions.

Individual or person-directed interventions target an individual’s characteristics and do not directly target work stressors. The assumption is that improvements in individual’s stress responses will spill over to positive

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42 de Jonge, J. and Dollard, M. F. 2002 Stress in the W orkplace, Sydney: CCH Australia Ltd.
44 Ibid.
effects in the work situation. Examples include exercise, relaxation, and cognitive behaviour therapy. These interventions are mainly secondary or tertiary (aimed at treating stress-related enduring health outcomes).

Moving from the specific realm of work stress to OHS in general, the unifying framework for the prevention and control of occupational exposure and disease is the 'hierarchy of controls'. This hierarchy states, in brief, that the further upstream one is from an adverse health outcome, the greater the prevention effectiveness. Hence, primary prevention should be more effective than secondary, and secondary should be more effective than tertiary. Importantly, however, these are not mutually exclusive and should be used combination. Given the clear links between organisational aspects and adverse health and organisational outcomes in HCS workers, it follows that the most effective intervention will be primary prevention focused on work organisation.

The empirical evidence for this is strong. For example, significant empirical research shows increased levels of resources (control, rewards, support) can moderate the deleterious effects of high demands (quantitative and emotional). While reduction in demands is recommended, in some cases improving job resources to offset the impact of demands may be a promising way to assist workers cope with job demands in the interim. This is an important finding because jobs combining high demands (not excessive) with high resources may be the most challenging and interesting for workers – so called active jobs.

Even though primary prevention is more effective, tertiary intervention (treatment and case management, rehabilitation and return to work) is required when workers are injured. In addition to managing individual cases, the occurrence of cases should feed back to primary prevention. In this way, lessons learned at the tertiary level can be used to prevent future cases from arising by addressing job stress issues at their source. Many injured workers, returned to work with no change in job conditions, are at risk because they continue to report high levels of distress (e.g., high job stress doubles the risk of second heart attacks for people returning to work after their first heart attack).

Unfortunately, the work stress claim is for many organisations the only communication system available to report and observe stress in the workplace. Organisations generally have no informal system whereby the experience of stress can be communicated and no means to detect that long absences could be stress related. Late notification then jeopardises early intervention. Research indicates chronic stress is a ‘slow accident’ and can be observed well before a stress claim is made. Long delays result from stigma and in some cases a belief that reporting stress is a career damaging.

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action. Beliefs and perceptions regarding stress and stress claims within the workplace and the organisational culture (e.g., communication between managers and workers, acceptability of stress as a legitimate injury, etc.) play a much more important role in psychological injury and the claims process compared with other workers’ compensation claims.

Further, the medicalisation of the problem through the diagnosis of ‘psychological injury’ shifts the focus of the problem of intervention away from stressors and workplaces and on to the ‘patient’ and clinic. The stress claim provides the injured worker with health and financial support, but is socially problematic and in itself stressful. Psychological claims are about 4 times more likely to be rejected than other kinds of claims and the investigation process is reported by claimants to be particularly difficult and—ironically—stressful. Thus, early intervention processes need to be developed that build communication processes upward. The evidence points to the importance of attitudes towards and stigma about psychological injury and its impact on reporting delays. Advocacy and mediation using professionals with a strong mental health background and vocational rehabilitation experience is being advocated in some workplaces as a way to assist in the resolution of communication problems and conflict that can easily escalate in the claim process.

Professional intervention is not the only way to assist those experiencing stress at work: evidence is increasing regarding the crucial role of care and support by the organisation, and well trained supervisors. Contact and communication from coworkers and supervisors is shown to be associated with early return to work for employees with mental health problems (but non-depressed) and following back injury. Even in the case of critical incidents, interventions involving supervisor support may be just as important for recovery as those received from more experienced professionals in the form of debriefing. Swift supportive responses to workers reporting stress (‘people’s immediate reaction’) is argued to be the single most important principle in early injury management. Of course the helpfulness of supervisor support would also depend on the relationship of the worker and peers/supervisor before the injury, and the nature of the contact. Finally the prognosis of the claim may be affected by the “others’ perceptions” about the causation of injury. For example, a study of human service workers found that psychological injury resulting from chronic work stress (as opposed to a critical incident which can be ‘observed’ and viewed as more legitimate) had a poorer prognosis in terms of claim duration and return to work outcomes.

54 Nieuwenhuijsen, K., et al., 2004 Supervisory behaviour as a predictor of return to work in employees absent from work due to mental health problems. Occupational and Environmental Medicine, 61: 817-823.
As this suggests, primary, secondary and tertiary interventions are not mutually exclusive and must be used in combination. Applying this general principle to occupational stress: primary prevention through improvements in work organisation is complemented by secondary intervention to address individual factors and to detect any effects of work stress in a timely fashion. This, in turn, would both minimise the need for rehabilitation or tertiary intervention programs and maximise their effectiveness. In summary, there are complementary roles for primary, secondary, and tertiary intervention strategies. Secondary or tertiary interventions in isolation, however, cannot compensate for the absence of primary preventive measures.

Furthermore, there is good evidence that interventions combining organisational with individual/organisational approaches are able to both modify stressors as well as reduce more enduring health outcomes (e.g. burnout). Individual approaches alone or combined with I/O appear effective in reducing short-term stress responses. Thus, interventions can lead to significant health and psychosocial work environment improvements for those in the health and community services sector. Individual approaches by their nature cannot modify stressors but show significant stress symptom reduction though only over the short term. Comprehensive interventions that include organisation and individual interventions in particular are the least applied but can potentially produce changes in organisational and work characteristics as well as improvements in health and organisational outcomes. More research and interventions focused on organisational level and economic outcomes are required. In summary: job stress interventions in the HCS can reduce stressors and associated adverse effects on employee health and on the organisations.

Consistent with developments in public health policy and practice and given the limitations in the extant evidence base, an evidence-informed approach to stress prevention is needed, where a broader array of evidence informs more complex judgements about prevention interventions in different social (rather than clinical) settings. Ascertaining why an intervention works or does not work, understanding the process by which the intervention and outcomes are linked, and understanding the ways in which context (e.g. attitudes, previous experience with projects, sabotage) influences the success or failure of an intervention requires evidence wider than that required in merely answering the question ‘what works?’

In particular, it needs more data than that which we have described here. The political, economic and social context of interventions has considerable influence on outcomes. The consultation process used in this project sought to collect the necessary information to allow this context to be characterised so that it could be addressed in the action model we developed. The next chapter sets out the key principles and frameworks for an effective intervention model for the HCS, based on the findings of the literature review and the outcomes of consultations with the Steering Committee and the stakeholder workshop.

Key principles and frameworks

This chapter reports on the outcomes of consultations with the Steering Committee and the stakeholder workshop, integrated with the findings of the literature review, to set out the key principles and frameworks for an effective intervention model for the HCS.

The workshop was held in Sydney in February 2005 using the Future Inquiry method that is discussed in Chapter 2, Method, above. This workshop was designed to get stakeholder input to the workplace stress intervention model that is an outcome of this research. Representatives of a wide variety of stakeholder groups were invited to attend and contribute their ideas and observations.

The workshop commenced with an introduction and overview of the literature on stress and psychological injury in the H&CS sector, covering in particular the key findings of the importance of primary intervention and the need for feedback from secondary and tertiary activities to primary intervention.

The workshop’s aims were:
1. To determine the needs of stakeholders
2. To consider the evidence arising from the literature review
3. To look at:
   i. Principles that should underpin the model to be developed in the project
   ii. The context for testing the model
   iii. Criteria for choosing interventions
   iv. Supports and barriers for implementing interventions

The workshop program consisted of group work and plenary sessions, allowing participants the opportunity to work in stakeholder groups and in small groups including representation of different stakeholders. The outcomes of small group work were reported to the whole group in plenary sessions, allowing further consideration of contributions from the range of groups represented amongst the participants.

There was remarkable congruence between normally opposed stakeholders on what the issues are and the ways forward. For example, there was strong agreement that the issue of job stress needs to be de-medicalised in order to facilitate organisational responses and improve rehabilitation prospects. There was also agreement on the need to reduce the stigma associated with stress claims in order to get people back to work. Participants were also generally agreed that primary prevention is the most effective means of developing healthy and safe working environments, but that most experience in the HCS sector was with secondary and tertiary interventions.

The findings from the workshop helped us to identify not only the needs of the stakeholders, but also to identify and affirm what lessons can be learned from the experience of others. This was an important stage in the
development of an effective model because, being grounded in the experience of the stakeholders, the workshop reflected the reality of everyday life in these organisations giving us information to enable us to tailor the model to meet their needs. It also built commitment to the prevention/injury management strategy from the beginning.

Participants identified aspects of the current situation that were supporting more effective approaches to job stress and key features of the current environment that would affect their capacity to implement better strategies.

A variety of effective strategies were already in place. Some of these were diagnostic, such as employee opinion surveys. A number of tertiary strategies were reported, eg early intervention when signs of stress-related ill-health start to be manifested. Many participants reported that their Employee Assistance Program (EAP - a secondary strategy) made an effective contribution to reducing the negative outcomes of job stress. A surprising number reported on primary strategies that were in place, albeit in a limited or developmental stage. Strategies such as giving greater control over client interactions (eg letting staff who work in clients' homes the right to refuse to enter), ensuring role clarity and increasing staffing levels to address workload were evident in participants' workplaces and were reported to be effective in preventing stress.

As well as positive experiences of interventions in workplaces, participants at the workshop also identified positive features of the current environment that will support implementation of effective interventions:

- Existing activity in HCS workplaces, such as recognition of workload as an issue and empowerment of staff in limited areas, with some assessment tools in use
- OHS legislation that requires that all risks (including risks of psychological injury) must be subject to risk management processes
- Increasing cost of claims promoting attention to psychosocial risks
- Improved quality of and access to research on the causes of psychosocial risk
- Quality management processes, including accreditation standards
- Funding arrangements, requiring that these issues are addressed
- Awareness of stress as an issue, including recognition of the problem
- Existing consultative arrangements within enterprises and networking across the industry
- Strategic planning cycle for OHS, allowing strategic responses to psychosocial risks to be planned
- Clear accountabilities for managers with appropriate responsibilities and resources
- Formal competency based training that provides work-related skills, as well as stress management skills to build resilience.

However, all participants recognized that the context also presented some challenges that will need to be addressed to maximise the effect of interventions:

- A claims management focus to the issue that misdirects attention from the causes of job stress to the ill-health outcomes and leads to a perception that stress is caused by personality rather than work organisation
Sensitivities by some managers and operators that acknowledging the existence of job stress may escalate the problem more than reality

Lack of accurate statistics about the incidence of job stress and any consequent ill-health

More competitive funding arrangements from government that can lead to under-resourcing that in turn creates unreasonable work demands.

The amount of work involved in managing stress claims makes it difficult to direct enough resources to prevention

The number of accreditation bodies across the industry creates some inconsistency, as well as making extra work solely to achieve compliance with different documentation requirements

Many smaller agencies, such as Non-Government Organisations, do not have the resources to develop policies and procedures on their own or to participate independently in accreditation processes

Incentives based on workers’ compensation experience can encourage aggressive claims management practices, that may result in strategies to hide job stress-related illness, particularly in large organisations and at management level

This can be further exacerbated by financial management approaches that transfer workers’ compensation costs to a local level. This causes animosity and reluctance to participate in return to work strategies that can further increase local costs.

Undermining accountabilities being fulfilled, whether by not enforcing them or by not providing the necessary resources or authorities to fulfil them

Poor claims management and return to work practices, eg strategies that require return to the same work area when the cause of the psychological injury has not been addressed

Use of workers’ compensation as a strategy by managers to manage workplace problems

Lack of knowledge and skill to manage psychosocial risk, particularly lack of management skill and lack of any regulatory guidance

Insufficient tools to use in a risk management process and to allow greater understanding of the problem.

The principles for an effective intervention model for job stress set out the values that underpin effective intervention. They can be provided to all involved in an intervention to make the basis on which the intervention is being conducted clear and transparent. Throughout the project, we collected data about the range of concepts that the principles need to capture.

The Steering Committee identified at its first meeting that the model should have the following features:

It should be able to be implemented by non-technical staff and not be reliant on a risk manager or other technical experts being employed within an organisation

It should offer ways to address different causes of job stress

It should identify signs to look for and provide a repertoire of strategies to address them

It should detail practical interventions to control the risks

It should provide guidance on how an organisation can be able to recognise the risk of job stress.
Participants at the workshop also identified proposed principles:

1. Collaboration, consultation and communication
2. Senior management commitment (particularly to providing resources) and employee participation, with clear responsibilities, expectations and accountabilities
3. A risk management approach, supported by sound management systems
4. Prevention focused, but able to deal with stress-related ill-health through early identification and intervention
5. Built on effective partnerships with stakeholders
6. Systematic and flexible, able to deal with a diversity of contexts
7. Dignity and respect, particularly able to deal with equity and diversity issues
8. Addressing all three levels of primary, secondary and tertiary and integrated within an organisation's management system
9. Strategies need to be workplace driven - a single solution will not deal with all workplaces.

We also identified evidence-informed principles based on both qualitative (i.e. case study material) and quantitative approaches (i.e. systematic reviews) from the literature:

1. Follow a careful planning process
2. Involve workers in the design and evaluation of the intervention
3. Obtain support for the intervention from all layers of the organisation
4. Base the intervention on a conceptual model.

As well as the concepts of primary, secondary and tertiary interventions, a cornerstone of an effective conceptual model is the ‘hierarchy of control’62, a risk management tool familiar to occupational health and safety practitioners. In current use the hierarchy of control is regularly applied to disease and injury and has been incorporated into Australian OHS regulation. The hierarchy of control recommends interventions to control hazards in the workplace from most effective to least effective as: elimination, substitution, isolation, engineering controls, administrative controls, including safe work practices and training, and lastly the use of personal protective equipment. Elimination of hazards at source is the most effective means of controlling workplace hazards. This applies as much in the matter of job stress as it does in the control of other workplace hazards. The first four levels of the hierarchy of control are the most effective because they require physical or operational change in the workplace and are not dependent on people’s behaviour. Applied to job stress these are the primary interventions discussed in this report. The final two levels of the hierarchy of control are dependant on people’s behaviour and are regarded as the least effective. For job stress these are the secondary and tertiary controls discussed in this report.

Another existing set of principles has been provided by the team that developed a diagnostic tool discussed in the next chapter, the Copenhagen

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Psychosocial Questionnaire (COPSQO). They also provide a set of principles to guide investigations using the questionnaire. Called “The Soft Guidelines” they consist of 10 statements:

1. Never start a survey of the psychosocial work environment unless there is a clear intention of taking action if indicated.
2. Answering the questionnaire is voluntary, but a response rates below 60% is unsatisfactory and a sign of poor psychological climate at the workplace.
3. All respondents are anonymous. If scores are calculated for groups of less than 15 persons all group members should give their active consent.
4. All employees have the right to see and discuss the results.
5. Management as well as supervisors and workers should participate and be committed during the whole process.
6. It is important to distinguish between basic conditions of work that are “part of the job” and factors that could be changed. Do not try to change what cannot be changed and do not accept what should be changed.
7. There are no standard solutions to the problems. Solutions should be developed locally and integrated in the other activities of the organization aiming at increased productivity and better quality.
8. If interventions are made, it is a good idea to repeat the survey after 1-2 years in order to see if the intended improvements have been made.
9. Many workplaces will benefit from surveys with regular intervals as part of the overall concept of the “learning organization” and the “developmental work”.
10. The survey results should be seen as a tool for dialogue and development – not as a “grade book”.

Pulling these data together and matching them against the scientific research, summarised in the previous chapter, provides the following set of principles for an effective intervention model for the HCS sector:

- Dignity and respect for all parties
- Participation and collaboration by everyone in the organization at all stages, including design, with clear communication of plans and results
- Management commitment, expressed particularly through provision of adequate resources for implementing any interventions
- Employee commitment, expressed through active and honest participation
- Accessibility - everyone needs to be able to understand and contribute to interventions
- Flexibility - interventions need to be able to respond to different contexts, to meet the needs of different workplaces and to change over time
- Workplace focused, with strategies linked to the specific needs of individual workplaces, not imposed on an a priori basis
- Systematic, based on the risk management approach
- Preventive, effectively integrating primary, secondary and tertiary interventions and using the hierarchy of control to choose interventions
- Integrated with other relevant management systems, eg performance management, training
- Action oriented - the purpose of intervening is to control risk, not to simply collect data
- Focused on the organisational risk factors, not a medical approach.

63 TS Kristensen, personal communication, 2004
These principles provide a sound basis for developing policy and an intervention model, described in the next chapter.

As the principles above set out, rather than a prescriptive model, a framework for effective interventions to control the risks of job stress in the HCS sector needs to support effective participative decision-making in workplaces to ensure sound choices. The participants in the workshop endorsed the findings of the literature review that a range of options is needed to deal with job stress in the HCS sector and strongly urged that the model needed to move away from a medical conceptualisation of the problem. This was also supported by the Steering Committee who determined that the strategies to be addressed by the model should provide guidance on the different ways to deal with job stress and how to choose between them in different circumstances.

A useful conceptual framework for understanding job stress and choosing effective interventions, using a systems approach, has been developed by LaMontagne et al\textsuperscript{64} as shown in Figure 1. This conceptual framework is explicitly based on an organisational or systems approach to job stress, not a medical model. It summarises the three levels of job stress and job stress interventions: primary, secondary and tertiary, and describes how they relate to each other. Work organisation is at the primary level. Interventions at this level are known to be most effective because they deal with stressors at their source: at the organisation of work, or at the working environment.

At the secondary level is the organisation/individual interface. Here the aim is to systematically equip people with the skills, knowledge and resources to cope with working in stressful conditions. These are strategies that can be very powerful, but they need to be used in conjunction with primary interventions, because they focus on individual responses. To use them on their own runs the risk of implying that the individuals who find the work situation stressful are, in fact, responsible for it and are able to control it themselves. Participants at the workshop suggested that used on their own, secondary interventions can actually increase job stress because nothing changes upstream to improve the workplace and coping measures only have a limited life. Used on their own, secondary interventions can send a message that people are the problem, not the work organisation.

Tertiary interventions are the responses that are used to heal people after they have succumbed to job stress. Logically, these are least effective in reducing the experience of job stress overall because someone is already hurt or made ill by their work or work conditions. Nonetheless, they are important strategies to get right because they potentially allow people to be rehabilitated. Tertiary interventions need to be used in conjunction with secondary and primary interventions, too—there is little point in sending a rehabilitee back to the same working environment, work organisation or to work with people with whom there are already poor relationships.

In managing job stress, understanding the inter-connectedness of interventions is critical. As the last column in Figure 1 illustrates, there needs to be feedback loops operating between the different forms of intervention to inform practice.

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**Figure 1: A Conceptual Framework for Job Stress**

<table>
<thead>
<tr>
<th>Intervention Level</th>
<th>Definition and Description</th>
<th>How Effective?</th>
<th>Examples</th>
<th>Historical Tradition</th>
<th>Integrate systems</th>
</tr>
</thead>
</table>
| 1° — Primary       | **Preventive, proactive**    | +++            | Stressors at their source:  
• organisation of work;  
• working conditions | **O/E** | OHS, Public Health |
|                    | Goal: reducing potential risk factors or altering the nature of the stressor before employees? experience stress-related symptoms or disease | | | | |
| 2° — Secondary     | **Ameliorative**             | ++            | employee responses to stressors (perceived stress or strain) | **O/I** | Psych, OHS |
|                    | Goal: To help equip people with knowledge, skills, and resources to cope with stressful conditions | | | | |
| 3° — Tertiary      | **Reactive**                 | +             | enduring adverse health effects of job stress | **I** | Clinical |
|                    | Goal: To treat, compensate, and rehabilitate employees with enduring stress-related symptoms or disease | | | | |

* I = **I**ndividual, O = work **O**rganisation, E = work **E**nvironment.
Interventions may be at the level of the working environment, the organisation of work or at the individual level. For example, consider an open-plan office environment. At the work environment level, job stress may come about through exposure to noise or lack of auditory privacy, or inadequate room for the job. At the work organisation level, job stress may come about through poorly designed shifts, poor communication or lack of opportunity for participation in decision-making. There may also be poor relationships that result from these issues in the workplace. Interventions at the primary level will be aimed at ameliorating the identified deficiencies. For example, by improving the physical working environment, by negotiating more acceptable shifts, by improved communication or by setting up systems of work that encourage people to participate in decision-making and giving them the resources to enable them to do so.

At the secondary level, but operating at the work organisation/individual interface, a system might be established to deliver training in various coping mechanisms, such as relaxation training, or conflict resolution training. The training system operates at the work organisation level, but the delivery of the training impacts at the individual level. At the tertiary level there may be individual treatment or other services delivered to individual workers who report the effects of job stress on their health. This might include return to work services in which the worker and their peers are provided with support to enable a successful return to work. Tertiary intervention must be accompanied by interventions at the primary and secondary level to be effective in the long term. To build improvement, the lessons from evaluation of each level of intervention need to inform changes in the approach at each level.

This conceptual framework is a useful way to picture how job stress operates in a workplace and how different forms of intervention might have impact. However, it gives little insight into the actual actions that management and workers might take to move their organisation towards eliminating job stress and making their workplace healthy and safe. Our Job Stress Risk Management Model, described in the next chapter, provides practical guidance on how to achieve this.

As well as the conceptual model, an effective intervention model relies upon specific processes and structures to give effect to both the principles and the conceptual framework. These will depend upon the specific circumstances where intervention is being implemented, but generally, the following structures and processes will be needed:

1. Industry agreement with all stakeholders including unions accepting the principles and conceptual framework described above and the model set out in the next chapter
2. Access to resources, such as guidance, tools and services
3. Acceptance by government of the need in the short term to adequately resource interventions in a sector so reliant upon government funding
4. Awareness raising and training across the industry so that participative processes can be legitimate
5. Data collection and analysis, covering the range of data sources set out in Chapter 6, Evaluation.

Establishing this structural framework could be achieved through testing the action model, described in the next chapter.
In establishing a model for action we were informed by the review of the literature and have used the principles and framework based on the outputs of the stakeholder workshop, discussed in the previous chapter. In this chapter we build on this information and outline a model for action to deal with job stress in the workplace.

The Job Stress Risk Management Model that we have developed for this project takes a risk management approach—identify, assess and control—to job stress based on the hierarchy of control as described in the previous chapter. The steps in managing job stress are: identify the hazards or stressors, assess their level of risk, and control using the hierarchy of controls to guide action. Each of these steps can be taken at the primary, secondary and tertiary levels, using the Job Stress Risk Management Model illustrated in Figure 2 below.

The first step in managing job stress is to develop a framework to encourage, enable and resource active participation and collaboration by management and the workforce. The WorkCover NSW website provides guidance on consultation and participation, including a Code of Practice that can be found at: <http://www.workcover.nsw.gov.au/OHS/Consultation/CodeOfPractice/default.htm>. Existing workplace consultative forums, such as OHS Committees, may be the appropriate forums to guide action. A participative approach is critical to the success of any program. The OHS Committee (or similar forum) should decide on the principles of action, such as those that were discussed in the last chapter. Underpinning these is management commitment and commitment from employees and their representatives to help take action to manage stressors at work.

The next step is to identify the hazards or stressors in the workplace. At a primary level this will involve finding out from the workforce what they consider to be the stressors in the workplace and how they believe they affect them. The most effective and efficient way to do this is to use a combination of questionnaire and focus group interviews. This is a powerful combination because it allows people the anonymity to express their views about the work environment, but also gives the opportunity to explore issues in more depth. Using the combination gives a better sense of the validity of the findings, too. A search of the literature will reveal many resources that can be used. Some are propriety questionnaires administered and analysed at considerable cost, while others are in the public domain (see below).

Investigation of the psychosocial environment can be conducted in-house, but to do this an organisation would need to have the appropriate skills to administer and analyse the questionnaires, facilitate focus groups and analyse the data and effectively maintain confidentiality. If the OHS Committee or the workforce are not confident that this is achievable, then expertise from outside will be needed. This can be preferable in any case, because an external person will have a fresh perspective on the organisation. Whoever runs the investigation, the OHS Committee will need to be confident that the work is being done in accordance with the principles outlined in the previous chapter.
**Figure 2: Job Stress Risk Management Model**

<table>
<thead>
<tr>
<th>Action</th>
<th>Primary</th>
<th>Secondary</th>
<th>Tertiary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify</td>
<td>Use psychosocial assessment questionnaire (eg COPSOQ) and focus groups for rich qualitative data. Focus groups are an important way to identify the extent of problems identified in questionnaires, and to give insight into issues not covered in questionnaires.</td>
<td>Use aggregated, de-identified EAP data from provider. Examine data from grievance reports.</td>
<td>To identify possible problem areas: Examine workers’ compensation claims data. Examine sickness absence data. Examine changes in unplanned leave levels or in patterns of unplanned leave.</td>
</tr>
<tr>
<td>Assess</td>
<td>Analyse data from questionnaires and focus groups to see if groups are affected differentially, and to help determine which issues are more prominent.</td>
<td>Analyse aggregated, de-identified EAP data and/or grievance reports to see if groups are affected differentially, and to help determine which issues are more prominent.</td>
<td>Examine severity of reports. The scale, and/or differential experience of unplanned leave may give insight into the scale of the problem.</td>
</tr>
<tr>
<td>Control</td>
<td>Change work organisation or work environment in response to findings from questionnaires/focus groups: eg change shift regimes, improve auditory privacy.</td>
<td>Develop secondary strategies: eg strengthen EAP or make it less formal; train and use peer support.</td>
<td>Improve return to work processes: eg improve treatment regimes, train and engage peers and supervisors in the rehabilitation process.</td>
</tr>
</tbody>
</table>

In all cases use participative approaches to identify hazards/stressors

Hazards/stressors identified

In all cases use participative approaches to assess the risk

Enough information to be able to control risks effectively

In all cases use participative approaches to develop control measures

Link primary, secondary and tertiary interventions— they are synergistic
Some tools

COPSOQ, the Copenhagen Psychosocial Questionnaire (COPSOQ)\textsuperscript{65}, is a recently developed, intervention-oriented tool that consolidates a variety of existing, validated tools such as that of the Job Content Questionnaire of Karasek et al\textsuperscript{66}. COPSOQ is used internationally for psychosocial investigations in organisations and an increasing body of data is available for comparison from around the world and in many different industries. Many of the questions in COPSOQ are also included in the tools in the UK Health and Safety Executive psychosocial indicator tool, which is also in the public domain\textsuperscript{67}. Questions on fairness and rewards, from Siegrist’s Effort-Reward Imbalance questionnaire\textsuperscript{68}, will be included in future versions of COPSOQ. Designers of questionnaires and facilitators of focus groups need to be mindful of cultural sensitivities that may exist in the workplace, for example, those of Aboriginal health workers\textsuperscript{69}.

To elicit information about the broad range of stressors at work, questionnaires need to cover the main domains of known causes of job stress, as discussed in previous chapters. For example, there are three versions of COPSOQ: a long version for researchers that includes 141 items, a medium version for use in workplaces including 95 items and a short version for workplaces that includes 44 items. The question categories are: demands, work organisation, content of work, interpersonal relationships and leadership. The HSE psychosocial indicator tool has questions in eight categories: demands, control, managerial support, work colleague support, role, relationships, and change, with a total of 35 questions. For work in organizations in Australia, Shaw and Blewett\textsuperscript{70} have constructed a questionnaire that uses a range of questions from COPSOQ in combination with questions from the Effort-Reward Imbalance questionnaire.

Using focus groups

Focus groups should be used as well as questionnaires. Focus groups can involve upwards of eight people and take about 1.5 hours each. They need to be facilitated by a competent facilitator who has no role in the workplace or part of the organisation under consideration. Focus group interviews at workplaces provide additional insight into the nature of work, the risks people face and the possible control measures that could be implemented. They provide rich qualitative data, they are an important way to identify the extent of problems identified in questionnaires, they can give insight into issues not covered in questionnaires, and they can provide more detailed information about who might be harmed and how they might be harmed by job stress. The combination of the two helps to provide internal validity to the investigation by comparing focus group data with statistical data obtained from the analysis of questionnaires. The rich, narrative data provided through focus groups allows verification of the findings of a job


\textsuperscript{70} Personal communication about unpublished work.
questionnaire because it is a different perspective on the identified issues. The questionnaire can be administered at the beginning of focus group interviews provided they are collected in such a manner that participants are confident they cannot be identified. The questionnaire can help to set the scene for a focus group. Alternatively, focus groups might follow the analysis of questionnaires to help direct the attention of discussion.

Focus groups might also be informed by other, secondary-level data available about the workplace such as EAP reports or grievance reports. When using these data the privacy of individuals must be preserved, so these data must be aggregated and de-identified. Most EAP providers will report in this way in any case, but some report in more detail than others. The nature of the reports may depend on the size of the workplace and/or operational units.

Tertiary-level data is data about outcomes and includes workers’ compensation claims or unplanned absence data— for example, sickness absence data. Patterns of leave across the organisation, or changes in the amount of leave over time or in different areas or amongst particular groups of employees, may be indicators that there are areas of concern. These data add more pieces of information to the jigsaw puzzle. They are unlikely to tell the whole story on their own, but in combination with primary and secondary forms of data may allow the picture to be pieced together.

**Assess the risk**

Just as participative processes are important in setting up the identification of job stress in organisations, so participation is critical in the assessment of risk. During this stage, the data collected in the identification stage is examined to determine what the risk factors are, which populations within the organisation are affected — some may be affected differently from others — and to consider those organisational factors that increase or decrease the risk. To assess a risk, all of the factors that affect the risk must be examined. In particular, risk assessment looks at:

1. The number of people exposed to the risk
2. The different types of people who are exposed and their special needs, eg new workers, women, young workers
3. How they are exposed to the risk
4. How often they are exposed
5. How long they are exposed for
6. The combination of hazards they are exposed to (eg musculoskeletal strain as well as job demand)
7. How serious the harm could be
8. What the law says about risk control
9. The work processes involved, eg customer service
10. How well your current controls work.

Collecting a range of types of data is an advantage in risk assessment. It helps to identify priorities for action. As well as giving priority to those areas where people are most at risk of serious harm, areas where small actions may have very large impact can also be identified. Attention to these areas is warranted as well.

**Control the risk**

The stage of working out what can be done to control the hazard and minimise or eliminate the risk is an opportunity for creative thinking within the agreed framework for intervention described in the previous chapter. The most effective and efficient intervention programs are developed in a
participative and collaborative manner that addresses the specific issues that have been identified and assessed in the particular workplace— at the primary level of control. This means making changes in work organisation or the working environment. Participative discovery and planning processes, such as Future Inquiry, described above, future search conferences\(^{71}\), appreciative inquiry\(^{72}\) and open space technology\(^{73}\), are all processes that are in the public domain and can build on existing participative processes.

Primary intervention requires that the control measures need to deal with the source of risk. By working participatively to determine primary control measures, it is likely that people in the organisation know or can develop the answer to a problem. From the outcomes of the stakeholder workshop and our experience in organisations, it is likely that the lack of implementation of primary interventions is not due to lack of knowledge about what to do to make workplaces healthy and safe. Most frequently the impediment is that people want to preserve the status quo in an organisation and are not prepared to make changes if this appears to be threatened. However, the only sure way to make a workplace healthy and safe, is to make the changes necessary to make it healthy and safe.

This report does not provide a prescriptive list of options for action. In fact, there is no prescription for particular control measures; but they do need to address concerns according to the identified and assessed need. The following examples illustrate the range of primary preventions that could be implemented.

If job demand is identified as a problem— for example, if workers have to keep their eyes on many different things at work, have to work fast and make difficult decisions quickly that have importance for the quality of others’ lives— then control measures will need to include decreasing the demand on those workers. This might be achieved by changing the pattern of work, by providing different equipment in the workplace, by increasing staff, by changing shift regimes, by increasing training, or by a combination of these actions.

If job control is identified as a problem— for example, if workers have no control over who they work with, no influence over what they do or how they do it or the amount that is assigned to them— then control measures will need to increase worker’s control over their work. This might be achieved by allowing workers to design their own work rosters or shifts, by allowing them to participate in the allocation of work, by training a group of workers to be self-managing, or by a combination of these measures.

If role-conflict is identified as a problem— for example, if workers have to do work that seems to them to be unnecessary or that they believe should be done in a different way, if contradictory demands are placed on them— the control measures will need to increase the clarity in the work. This might be a matter of writing expectations down in consultation with the worker, or by ensuring that only one person gives work to the worker, or that work that is given is consistent with accepted standards for the work, or by a combination of these things.


If low rewards are identified as a problem—for example, if the job is perceived to be too low in pay for its level of skill or responsibility—then the control measure will need to increase reward. In some organisations this might mean making a case to increase wages or salary or improve conditions of service. If non-monetary ways of increasing recognition are used, then it is important that they are meaningful and not patronising or offensive.

Secondary interventions involve addressing the ability of people to cope with workplace stressors, in a manner analogous to the use of administrative procedures and PPE with physical hazards. For example, this may involve implementing or strengthening an EAP to deal with specific needs in the workplace. Training and encouraging peer support people may also be appropriate. Training in anger management or relaxation may improve individual workers’ capacity to cope with difficult work periods or difficult work situations. Secondary interventions are likely to be temporary until more long-lasting primary interventions can be implemented or take effect. Others may become permanent features in the workplace, but they should be designed to integrate with primary and tertiary interventions.

Tertiary level control measures focus on injury management, rehabilitation and return to work processes. If these are areas of risk, then action to improve these processes is needed. Interventions at this level include making claims handling more efficient, developing a culture of respect for people on workers’ compensation to assist them to rehabilitate and return to work. If peers and first line supervisors are identified as a block to effective return to work, then training and engaging these people in the rehabilitation process may be an important control strategy.

Whatever stressors are identified, control measures need to be designed to fit the circumstances of the organisation. Primary, secondary and tertiary interventions must be integrated, their effectiveness evaluated and the knowledge fed back into the design of new interventions at all levels. There is more information about evaluation in the next chapter.

At each step in the risk management process primary, secondary and tertiary approaches and interventions must be integrated. To isolate one form of action will only weaken the overall approach. For example, a focus solely on tertiary identification data, such as workers’ compensation statistics, to identify stressors, will severely limit the view of the organisation as a whole. As has already been discussed above, and as the literature review and stakeholder workshop identified, only a fraction of people who suffer from job stress will lodge a workers’ compensation claim. Others will resign, seek transfers, or fall ill from diseases that are not traditionally identified as job stress-related. Analysis of workers’ compensation data then, needs to be reviewed in the light of secondary-level data as well as primary-level data, for example data from questionnaires and focus groups. Similarly, at the stage of risk assessment it is important to include a review of primary, secondary and tertiary issues to build a sense of the size of the problem and the risk involved. Finally, at the control stage, a well-rounded response to job stress will include actions to deal with those who are already experiencing stress-related ill-health, those who need assistance to cope in the workplace and strategies to deal with work organisation and work environment issues.
Benefits of the model

Implementing this action model of job stress may, in the first instance, introduce new methods of communication and a new style of collaborative and participative cooperation at work. This alone is of value because it can lead to more cooperative approaches to other aspects of work. It also allows an intervention to be developed with the specific organisational features of the target workplace in mind, increasing the ability of the model to deal with workplace culture issues. There is potential for increased learning in the workplace, too, as those who participate learn new skills and gain new knowledge. The approach allows the process to build on existing resources and improves organisational capacity to deal with stress because the approach embodies the principles of effective intervention identified in the last chapter.

Of course, if the organisation is able to control job stress effectively, then there are the obvious benefits of a healthy and safe working environment: harmony at work, increased satisfaction, engagement of workers and management, and productivity increases. All of these are important and beneficial business outcomes.

Testing the model

Testing the model requires implementing it in a suitable sample of workplaces and evaluating it, as described in the next chapter. To do this, the following sequence of steps should be undertaken:

1. Establish a tripartite Steering Committee for the pilot, perhaps based on the Steering Committee for this project, with the addition of other stakeholders, including union representatives.

2. The Steering Committee should choose prospective workplaces for the pilot, perhaps from workplaces represented at the workshop. These should include workplaces from different parts of the HCS sector, namely:
   - Hospitals
   - Aged care facilities
   - Psychiatric care
   - Child Protection
   - Non-Government Organisations.

   Geographical differences should be addressed as well and workplaces from urban, regional and rural locations involved.

3. The Steering Committee should negotiate arrangements over resourcing, timing, management and facilitation with the workplaces, WorkCover NSW and the workplaces' funding agencies. A project manager and a facilitator (or group of facilitators) should be appointed.

4. The facilitator(s) should conduct initial information sessions for key players in the pilot workplaces covering the basic agreements reached.

5. Final materials, based on this report, should be prepared for use in the pilots.

6. The facilitator(s) should facilitate the preparation of local agreements covering principles, framework and processes to be followed and the materials and resources that will be provided to support this. For example, this agreement should clearly specify the role of the OHS Committee or the group that has been agreed will manage the project. Specific barriers that will affect implementation progress should be identified and strategies to address them developed so that they can be implemented alongside the project. In particular, strong messages and indicators of support from top management will need to be delivered.
7 Overall information and awareness sessions should then be conducted for the entire organisation.

8 The agreed participative process should be used to design the risk management process in selected areas within the pilot workplaces.

Alongside this process, evaluation data should be collected to provide data that will allow the evaluation questions to be answered. The next chapter details an evaluation strategy for this project.
Evaluation

The previous chapter sets out a method for trialling the action model that has been developed in this project. This chapter sets out a process for evaluating the model, allowing testing and further development. In developing a sound evaluation method we relied on answering three questions.

In order to evaluate any intervention, it is essential to understand why or how it is expected that a given intervention will result in desirable changes in specific outcomes. The previous chapters of this report set out the theoretical and evidentiary underpinnings of the action model. To establish the evaluation method, we also need to answer questions like:

1. How can the model be implemented in practical terms?
2. How is it supposed to work?
3. Who or what is supposed to change?
4. Why?
5. Over what time period?

The answers to these questions have been described in the previous chapter and were drawn from the literature review, the outcomes of the workshop and the experience and expertise of the project team. From this, we created a program logic that sets out how the model is expected to progress.
**Figure 3: Program Logic – WorkCover NSW — Job Stress in HCS**

<table>
<thead>
<tr>
<th>Problem</th>
<th>Intervention</th>
<th>Activities</th>
<th>Short term outcomes (first year)</th>
<th>Long term outcomes (2-5 years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stress is a significant and growing cause of ill-health in the HCS sector. We know that 1˚ interventions are better than 2˚, which are better than 3˚. Interventions that integrate 1˚, 2˚ and 3˚ have the greatest effect. Most HSC interventions are 3˚, some (very few) are 2˚, few are 1˚, although the number of these is growing. Stakeholders are keen to do 1˚ and de-medicalise job stress.</td>
<td>WHAT: 1 Local (workplace or organisation) framework agreements - principles and process - materials to support this. 2 Training to increase awareness of and skills to deal with stressors, strain and risk management process and associated activities. 3 Risk management process - tools to id and assess possible actions for different risk factors.</td>
<td>1 Establish a tripartite Steering Committee (SC) that represents all stakeholders. 2 Negotiate arrangements: resourcing, timing, who will manage, facilitate. 3 SC chooses prospective workplaces for the pilot, perhaps from workplaces represented at the workshop. 4 Initial information session for pilots. 5 Prepare final versions of materials for use in the pilots. 6 Selected facilitator facilitates preparation of local agreements. 7 Overall information and awareness sessions. 8 Participative process used to implement the risk management process in selected areas within pilots.</td>
<td>1 Greater awareness of stressors, strain and risk management process. 2 Increased claims. 3 Shorter time-lag between strain being experienced and report of ill-health. 4 Greater capacity to identify, assess, control psychosocial risk factors. 5 Increased attention to 1˚ interventions. 6 Action on 1˚ risk factors. 7 Changes in levels of strain (e.g the General Health Questionnaire (GHQ)). 8 Changes in health outcomes (e.g cardio-vascular risk). 9 Reduced unplanned absences. 10 Increases in productivity.</td>
<td>1 Changes in degree of presence of risk factors. 2 Decreased severity of claims (using cost of claims as proxy for severity). 3 Decreased number of claims. 4 Action on 1˚ risk factors. 5 General health outcomes measured with the General Health Questionnaire (GHQ). 6 Changes in health outcomes (e.g cardio-vascular risk). 7 Reduced unplanned absences. 8 Increases in productivity.</td>
</tr>
</tbody>
</table>
Using the program logic, (see Figure 3) we identified priority questions that would allow WorkCover NSW to improve the model in the future and to continue to develop more effective interventions - to provide information for action. We addressed both process and effectiveness evaluation to provide a framework that can be used to fine tune the model during its implementation, as well as determine the long term outcomes.

**Process evaluation questions**
1. How well were the activities of the model implemented?
2. Were the right stakeholders involved?
3. How did the model affect the targeted people?
4. How well did the interventions generated using the model address the identified risk factors?
5. What changes occurred in the context of the model that have affected and will continue to affect implementation?
6. Have the interventions resulted in unanticipated consequences? For better or worse?
7. How effectively were relevant stakeholders involved in activities about the stress intervention?
8. Did the intervention address the risk factors with the biggest impact and how were these identified?
9. What aspects of the organisational context had the biggest impact on implementation?
10. To what extent did the implementation of the intervention vary in relation to varying contexts?

**Effectiveness evaluation questions**
1. How many employers, employees and health and safety representatives are aware of the factors that create psychosocial risks? Of how to apply the risk management process to job stress?
2. How many employers understand their obligations to control psychosocial risks?
3. What percentage of workplaces has undertaken risk management processes?
4. What percentage of workplaces has implemented appropriate strategies? Primary strategies? Strategies that integrate primary, secondary and tertiary interventions?
5. To what extent did the effectiveness of the intervention vary in relation to varying contexts?
6. How have the activities of the interventions affected performance against key psychosocial risk factors (eg demand, control and support)?
7. How have differences in implementation and internal and external environment affected performance against key psychosocial risk factors (eg demand, control and support)?
8. How have the activities of the interventions affected the satisfaction and engagement of employees?
9. How have differences in implementation and internal and external environment affected the satisfaction and engagement of employees?
10. How have the activities of the interventions affected levels of strain?
What are the appropriate methods and tools to answer these evaluation questions?

We also considered the study designs, methods, and measures that would answer the evaluation questions formulated in the preceding step. For some questions, outcome data, such as claims rates or the time-gap to report injury, may be needed, although these are often unreliable for job stress. For others, qualitative methods, such as collecting and analysing in-depth interview narratives from those involved in an intervention, will be required.

Different designs provide different levels of causal inference; that is, the degree to which the changes in outcomes are attributable to the intervention—and not something else. The highest level of causal inference would be achieved by an 'experimental' design. To achieve this type of evaluation, a group of HCS workplaces that could potentially be involved in the pilot would be established. Workplaces would be randomly assigned to two different conditions; one group would be directly involved in trialling the model and the other would not (the control group). The groups should be comparable in all respects except the intervention received.

This has the advantage that the causal inferences that could be made from the evaluation would be quite strong. However, it would considerably increase the cost of evaluation and it may not be possible to avoid 'contamination' from the workplaces where interventions are taking place to those in the control group, given the nature of the industry. This has previously occurred in a study of burnout in psychiatric nursing. The evaluation of this study found no observed changes in stress levels (burnout scores) between the treatment and control group\textsuperscript{74}. However there was imitation of the intervention by the control group due to leaked information making firm conclusions regarding a lack of effect (re burnout) problematic (see Mimura and Griffiths\textsuperscript{75}). In any case, simply collecting data about psychosocial risk could be considered an intervention and in epidemiological studies in public health such interventions have been shown to result in changes that affect the validity of findings from a case control study\textsuperscript{76}. We therefore suggest that the expense of a case control study would not be justified.

A less expensive, but still reasonably powerful, evaluation approach would be to implement the trial in a single group of HCS enterprises, collecting data before, during and after implementation. Implementation across the group of workplaces could be staggered so that the findings of process evaluation of earlier implementation could be built into subsequent implementation in other workplaces. Longitudinal evaluation is commonly

used when evaluating workplace interventions because of the problems cited above with case control studies. Figure 4 sets out the data collection strategy for the evaluation.

**Figure 4: Data collection strategy for Job Stress in HCS pilot evaluation**

<table>
<thead>
<tr>
<th>Data collection tools</th>
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<tbody>
<tr>
<td><strong>Process evaluation</strong></td>
</tr>
<tr>
<td>Focus group interviews of all senior managers, OHS committees, health and safety</td>
</tr>
<tr>
<td>representatives at participating workplaces.</td>
</tr>
<tr>
<td>Focus group interviews of a random sample of line managers and employees (separately),</td>
</tr>
<tr>
<td>sample size to be based on size of workplace.</td>
</tr>
<tr>
<td>Individual interviews of most senior manager on site, OHS personnel and relevant</td>
</tr>
<tr>
<td>union officials.</td>
</tr>
<tr>
<td>Document analysis.</td>
</tr>
<tr>
<td>Financial data about the costs of the intervention.</td>
</tr>
<tr>
<td><strong>Effectiveness evaluation</strong></td>
</tr>
<tr>
<td>Focus group interviews of all senior managers, OHS committees, health and safety</td>
</tr>
<tr>
<td>representatives at participating workplaces.</td>
</tr>
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</tr>
<tr>
<td>union officials.</td>
</tr>
<tr>
<td>Document analysis.</td>
</tr>
<tr>
<td>Written survey of employees using same tool developed for identification in the</td>
</tr>
<tr>
<td>intervention.</td>
</tr>
<tr>
<td>General Health Questionnaire.</td>
</tr>
<tr>
<td>Claims data.</td>
</tr>
<tr>
<td>EAP data.</td>
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<tr>
<td>Grievance data.</td>
</tr>
<tr>
<td>Sickness absence data.</td>
</tr>
<tr>
<td>Productivity data.</td>
</tr>
<tr>
<td>Financial data about the costs of the intervention.</td>
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<table>
<thead>
<tr>
<th>Timetable</th>
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</thead>
<tbody>
<tr>
<td>1. During the intervention - within first six months.</td>
</tr>
<tr>
<td>2. After the intervention has been running for 1 year.</td>
</tr>
<tr>
<td>3. After the intervention has been running for 2 years.</td>
</tr>
<tr>
<td>4. After the intervention has been running for 5 years.</td>
</tr>
</tbody>
</table>

**Costs**

Including the cost of interventions in evaluation of job stress interventions needs to be undertaken with great care. As this report has suggested, most job stress-related ill-health does not result in a workers’ compensation claim and therefore the true costs of not intervening are impossible to measure. It will therefore be important to include other costs, such as the costs of unplanned absence and reduced productivity to more accurately quantify the costs of job stress to the organisation.

Equally, the costs of conducting the evaluation need to be taken into account. Even the longitudinal evaluation proposed above involves considerable cost. Presuming a limited number of workplaces, an evaluation as described above could be expected to cost in the order of $150,000. As
this suggests, it is critical to ensure that the evaluation data that is collected will be useful and able to provide information necessary to improve and strengthen job stress interventions in the HCS sector.
**Conclusion**

The data presented in this report show that job stress is a significant issue in the HCS sector. Specific features of work in this sector increase the risks from work organization factors that cause job stress, such as the emotional demands of the work as well as rostering and shift work issues. However, there is good evidence that interventions can control these risks and in particular that interventions that integrate primary, secondary and tertiary strategies have the greatest benefit.

The research also found that the HCS sector in NSW is ready to implement more sophisticated approaches of this nature. The Future Inquiry workshop that was held as part of the project was highly successful, showing that there was remarkable congruence between normally opposed stakeholders on the issues and the ways forward. For example, there was strong agreement that the issue of job stress needs to be de-medicalised in order to facilitate organisational responses and improve rehabilitation prospects and that the stigma associated with stress claims needed to be reduced. Primary prevention was accepted to be the most effective means of developing healthy and safe working environments.

The challenge for the industry now is to build on this agreement and implement the model set out in this report.

This report represents the outcome of the first phase of an overall strategy that will contribute significantly towards developing and implementing better injury prevention and management strategies for work-related job stress in the HCS sector. Thus, this project will inform the next stage of the overall research strategy that will test the model as an improved prevention/management system for work-related job stress in the health and community services sector.

**Next steps**
Appendix 1:

Literature Review

The Literature Review is provided as a separate document for the purposes of this report.
Job Stress: Causes, Impact and Solutions in the Health and Community Services Sector:

A Literature Review

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Important Notice
This report is confidential and was prepared exclusively for the client named above. It is not intended for, nor do we accept any responsibility for its use by any third party.

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Executive Summary

Introduction
To understand more fully the causes, impact and solutions of work-related stress in the health and community service (HCS) sector we undertook: 1) a review of the general work stress literature, 2) a literature review of job stress intervention evaluation studies in the sector, and 3) an identification of job stress interventions currently being trialled in workplaces around Australia. Finally we reflect on how to apply this review of evidence to inform practice. The paper will focus on psychosocial work environment hazards and will also include bullying and violence at work. Psychosocial hazards (stressors) refer to aspects of “work design and the organisation and management of work, and their social and environmental contexts, which have the potential for causing psychological, social or physical harm”, pg 14 [1]

Overview of International Research on Job Stress and Its Impacts
Job stress refers to the harmful physical and emotional responses that occur when the requirements of the job do not match the capabilities, resources, or needs of the worker, p. 6[2]. The epidemiological evidence indicates that job stress is rapidly emerging as the single greatest cause of work-related disease and injury. The cost of stress to workers, employers and society is enormous and serious negative impacts on worker health and well-being (cardiovascular disease, psychological distress, general mental health, depressive symptoms, psychiatric disorders, and suicide), the family (work family conflict), the organisation (absenteeism, reduced performance) and on society (public health costs, insurance costs) are well documented in the literature. Compensated ‘psychological injury’ and other stress-related claims, despite their rise in Australia in recent years, represent only a small fraction of job stress-related adverse health outcomes[3]. Urgent attention and action is required to prevent and control stress in the workplace.

Particularly high levels of stress (relative to other sectors and occupations) are reported among HCS workers both nationally and internationally. Rates of high psychological stress as measured by the General Health Questionnaire[4] (22-33%) are found in numerous occupations in the sector compared with the national population (10%). Groups studied to date include radiographers, clergy, emergency medicine fellows, nurses, ambulance officers, social workers, nurses, podiatrists, allied health workers, ancillary staff, psychologists and general practitioners. High stress among workers in the sector is not merely an individual burden but threatens both the maintenance of a viable and healthy workforce and the capacity to provide quality services.

In the broader literature there is strong evidence for the proposition that 1) work organisation factors (e.g. high job demands, low control, low support, low rewards, poor management) predict adverse health and other outcomes, even after accounting for other possible causes of the same outcomes (e.g. socioeconomic status, personality characteristics), and that 2) various stress prevention or intervention strategies have demonstrated effectiveness in the prevention or control of work-related stress[5]. It follows therefore, that interventions should be implemented to prevent and reduce
work-related stress and associated adverse health outcomes in accordance with moral and regulatory mandates to provide safe and healthy work environments.

**Review of Job Stress and its Impacts in the HCS Sector**

We set out to examine the two propositions outlined above to establish the level of evidence for them specifically in the HCS sector. We conducted a systematic review of the most recent Australian and international literature published about the HCS sector searching for evidence of associations between stressors and outcomes. Key stressors identified were: work demands (particularly work load), emotional demands (including violence from clients), low control (low skill discretion, low participation in decision making), imbalance between efforts expended and rewards received from work (so-called effort-reward imbalance), low support (e.g., unsupportive supervisor), role issues (e.g., role clarity) and interpersonal conflict (e.g., bullying). In turn, these stressors were associated with adverse effects in both the short term (strain) and long term (enduring health outcomes) in the psychological (e.g. emotional exhaustion, psychological distress, burnout, anxiety, depression), physiological (e.g., physical health symptoms, cardiovascular disease, fatigue and protracted neuroendocrine reactions) and behavioural domains (absenteeism). Further, evidence is clear that these outcomes affect organisational performance through energy depletion and motivational processes (e.g., job dissatisfaction, lowered morale, absenteeism, mistakes). Evidence includes longitudinal studies, in which job stress measures taken at one point in time predict adverse outcomes measured subsequently. Consequently there is clear support for the first proposition in the HCS sector: work organisation factors predict strain and adverse health outcomes, even after accounting for other possible predictors. Therefore a reduction in stressors may lead to improvements in worker health and organisational outcomes.

**Review of Job Stress Interventions in HCS Sector**

To examine the second proposition we conducted a systematic review of the most recent job stress intervention studies in the HCS sector. We found that primary preventive interventions (combining organisational level interventions such as job redesign/ restructuring, communication, training and education programs, participation and autonomy), led to improvements in both the work environment (e.g. reduced demands) and stress-related outcomes. Secondary interventions that are individually focused (e.g., employee coping skills, Cognitive Behaviour Therapy) can also reduce stress symptoms in the short-term. In summary, support for proposition two is also very clear in the HCS sector: stress prevention interventions can reduce both stressors and stress-related outcomes.

Taken together, in the health and community services sector, work organisation factors predict adverse health and organisational outcomes, and stress prevention interventions can reduce stressors and stress outcomes (strain and longer term health outcomes). From this it can be concluded that stress interventions should be implemented to prevent and control stress in the sector.

The evidence obtained is consistent with broad occupational and public health principles: that is, that the closer the intervention is to the source of exposure (stressors), the more far-reaching the preventive impact and outcomes. Hence,
primary preventive intervention is more effective than secondary, and secondary intervention is more effective than tertiary intervention (e.g. rehabilitation). Having established clear links between organisational aspects and adverse health and organisational outcomes in HCS workers, it follows that the most effective intervention will be primary prevention focused on work organisation.

Tertiary intervention (treatment and case management, rehabilitation and return to work) is required when workers are injured. In addition to managing individual cases, the occurrence of cases should feed back to primary prevention. In this way, lessons learned at the tertiary level can be used to prevent future cases from arising by addressing job stress issues at their source. Many injured workers, returned to work with no change in job conditions, are at risk because they continue to report high levels of distress (e.g., high job stress doubles the risk of second heart attacks for people returning to work after their first heart attack).

Importantly, however, primary, secondary and tertiary interventions are not mutually exclusive and should be used in combination. Applying this general principle to occupational stress: primary prevention through improvements in work organisation is complemented by secondary intervention to address individual factors and to detect any effects of work stress in a timely fashion. This, in turn, would both minimise the need for rehabilitation or tertiary intervention programs and maximise their effectiveness. In summary, there are complementary roles for primary, secondary, and tertiary intervention strategies. Secondary or tertiary interventions in isolation, however, cannot compensate for the absence of primary preventive measures.

**Job Stress Interventions in Progress**

Despite legal frameworks for the prevention of psychological injury and for compensation of psychological injury there is widespread belief that the prevention and management of psychosocial risk and psychological injury could be better. For instance the NOHSC recently adopted Mental Disorders as one of its priority disease categories. As well there is increasing evidence within the jurisdictions of codes, standards and guidance notes to curtail psychosocial risk particularly in relation to bullying and violence.

We identified job stress interventions currently being trialled in workplaces around Australia, to establish what is currently being implemented, the focus, and the stimulus. These projects are on-going and not yet published. Relative to recent years there is significant project activity in stress prevention, intervention and management in nearly all Australian jurisdictions. The largest projects are in the public sector. In particular most of the activity is being stimulated by state WorkCover agencies, with a view to influencing the practice of stress prevention, intervention and management in workplaces within the jurisdictions.

A clear stimulus for the widespread activity is the cost and increasing rates of workers’ compensation claims for psychological injury. This is nearly always mentioned first in documents as the rationale for an intervention, and almost always leads to tertiary and secondary intervention approaches. Whilst improvements in the management of injured workers are important (e.g. return to work), the approach is fundamentally flawed in terms of stress prevention in the workplace. Nevertheless there are examples of primary prevention projects which aim to modify psychosocial risk at its source using, for example, participative risk management approaches to
inform intervention, with evaluation plans in place. Currently there is virtually no
evaluation information available to determine the efficacy of the various interventions
in the on-going Australian projects identified.

**Evidence-Based and Evidence-Informed Practice**

Evidence-based practice in public health interventions means implementing
interventions which are shown, mainly through quantitative and statistical approaches
to be effective and successful. Evidence at its best is derived from carefully
controlled randomised experiments conducted in rigorous conditions such that the
there is little doubt that the intervention itself led to changes in outcomes. The
approach is highly suited to medical intervention research. Work stress interventions
on the other hand take place in a real world where context and circumstance matter,
and where the context itself may be in a constant state of change (e.g. turnover,
restructuring, downsizing).

Therefore consistent with developments in public health policy and practice and given
the limitations in the extant evidence base, we argue for an evidence-informed
approach to stress prevention, where a broader array of evidence informs more
complex judgements about prevention interventions in different social (rather than
clinical) settings. Ascertaining why an intervention works or does not work,
understanding the process by which the intervention and outcomes are linked, and
understanding the ways in which context (e.g. attitudes, previous experience with
projects, sabotage) influences the success or failure of an intervention requires
evidence wider than that required in merely answering the question ‘what works?’.

Evidence-informed principles based on both qualitative (i.e. case study material) and
quantitative approaches (i.e. systematic reviews), can be readily derived from the
literature and recommended for successful stress prevention: 1) follow a careful
planning process; (2) involve workers in the design and evaluation of the intervention;
(3) obtain support for the intervention from all layers of the organisation; and (4) base
the intervention on a conceptual model.

**Developing a Job Stress Intervention Model for the HCS Sector**

The development of an effective, comprehensive, prevention model for job stress
intervention for the HCS sector is necessarily evidence-informed, drawing evidence
from both quantitative approaches (the evidence mainly presented here) and
qualitative approaches (e.g. using participatory techniques). Being grounded in the
experience of the stakeholders, the model will reflect the reality of everyday life in
HCS organisations and will be tailored to meet their contextual needs. The goal of the
February 2005 workshop was to gain the HCS sector input to such a model to ensure
its usefulness and relevance for the sector.

In conclusion, the evidence strongly points to work organisation factors as the
primary causes of work stress in the HCS sector. These factors are amenable to
change particularly through primary prevention approaches. In combination with
secondary and tertiary intervention these changes should lead to improved health,
well-being and organisational outcomes. The complex context-dependent
environments in which stress prevention and interventions are implemented require a broad application of evidence to fully inform practice.

Informed by the evidence we recommend a comprehensive approach to stress prevention with the priority emphasis on primary, followed by secondary, followed by tertiary intervention; embedded in a careful planning process that involves workers in the design and evaluation of the intervention, has support from all levels in the organisation, and is informed by a conceptual model.

References

Section 1

Brief Overview of the General Work Stress Epidemiology Literature

Introduction

In the literature on work-related stress there is strong evidence for the propositions that 1) work organisation factors predict strain and adverse health and other outcomes, even after controlling for other possible causes of the same outcomes (e.g. socioeconomic status, personality characteristics), and that 2) various stress prevention or intervention strategies have demonstrated effectiveness in the prevention or control of work-related stress.

In this paper we review the broad evidence for these propositions and then systematically review the Australian and international literature that specifically relates to the health and community services (HCS) sector searching for evidence of associations between stressors and strain and adverse health outcomes. A systematic review of stress management interventions implemented in the HCS sector follows in which we specifically focus on the type of intervention (primary prevention, secondary or tertiary intervention) and the level of intervention (organisation-focused, organisation/individual-focused, and individual-focused). The issue of early stress injury management is of obvious concern to the industry in cases where workers suffer stress injury. We also review this literature and highlight key issues in relation to injury management. Next we identified stress prevention, intervention and management strategies currently being trialled in workplaces around Australia. Finally we reflect on the limitations of the evidence base in relation to stress prevention/ intervention and explore a wider range of evidence to inform practice – so called evidence-informed practice. This entails the legitimate use of evidence from a wide range of study designs (e.g. descriptive and case studies as well as experimental designs) and methodologies (e.g. qualitative as well as quantitative) to address questions such as why, how, where and what works in stress prevention/intervention in the evolution of a model of stress prevention relevant to the industry.

Work Stress Process and Terminology

*Job stress* is defined by the US National Institute of Occupational Safety and Health (1999) as

> harmful physical and emotional responses that occur when the requirements of the job do not match the capabilities, resources, or needs of the worker. Job stress can lead to poor health and even injury (p.6).[1]

The terms *work stress, job stress* and *occupational stress* are often used interchangeably and are often used to describe an area of practice or study focusing on psychosocial aspects of work that detrimentally affect worker health.[2] As research in the area has grown so too terminology in the area has become more precise and agreed upon.

There is general agreement in the literature about what a stressor is (predictor of stress) and what a strain is (consequence of stress). *Stressors* may be physical or psychosocial in origin. Both types can affects physical and psychological health and
may interact with each other. Physical stressors may include biological, biomechanical, chemical and radiological. Psychosocial hazards (stresors) are those aspects of work design and the organisation and management of work, and their social and environmental contexts, which have the potential for causing psychological, social or physical harm.

Most research focuses on psychosocial stressors.

**Strain** refers to reactions to the condition of stress. These reactions may be transitory, but short-term strains are presumed to have longer-term outcomes. Work-related strain may include psychological strain (e.g. cognitive effects, inability to concentrate, anxiety), behavioural strain (e.g. use of smoking, alcohol), and physiological strain (e.g. increased hypertension). Enduring health outcomes may include: poor psychological health (e.g. anxiety disorder), physiological disease (e.g. cardiovascular disease), and behavioural problems (e.g. alcoholism) and death (p. 24).

Burnout is a term often used to describe a strain reaction (originally to working with people) that includes exhaustion—a measure of fatigue, cynicism—reflects indifference or a distant attitude towards work in general, and reduced professional efficacy (a sense of occupational accomplishment).

There is an important exception to the use of the term strain as denoted here. In the tradition of the Demand-Control theory of work stress, job strain is a term used to denote a particular combination of work environment stressors - high psychological demands combined with low job control.

Work stress theories try to unify the results of empirical research, explain and predict when stress outcomes will occur and under what conditions. There are two dominant theories in the literature. The Demand-Control model theorises that job stress will occur when levels of demands of the job exceed the levels of control available to the worker (particularly decision-making freedom) (i.e. so called high strain jobs). Further, the situation is made even worse when workers experience low levels of support (i.e. high iso-strain jobs). The Demand-Control-Support model has very strong empirical support in the literature. The model also predicts that conditions of active learning and motivation will occur when challenging jobs (high demands) are resourced with commensurate levels of control (i.e. active jobs). In other words jobs can be built to ensure healthy productive outcomes for both the individual and the organisation.

The Effort-Reward Imbalance model theorises that when the demands of the job are not matched by rewards (job security, pay, recognition, social esteem) strain will result. Further, a personal tendency to overcommitment (i.e. a strong desire for approval) may exacerbate this association. The Effort-Reward Imbalance component particularly has strong empirical support in the literature.

These models are not the only theoretical models available, and are limited in what they say about a much wider variety of stressors that we know are important following years of empirical research. For example Cox et al. simply outline a taxonomy of stressors including job characteristics and the nature of work, and the social and organizational context of work.

The way in which exposure to stressors leads to health effects is elegantly illustrated by Israel in Figure 1. Stressors precede perceived stress (not always necessary), which in turn leads to short-term responses to stress (strain), which are sometimes followed by enduring health outcomes (which can in turn affect psychosocial
conditions). All of these relationships can be affected by modifying variables (e.g. social, psychological, biophysical, behavioural and genetic factors). Bold arrows indicate possible interrelationships between variables (there are mediation pathways as well)\(^7\); dotted lines indicate the potential for the variables to moderate the relationship between stressors and short-term responses (strain), and between short-term responses (e.g. smoking) and enduring health outcomes (e.g. musculoskeletal disorders).

While the model highlights the effects of stress at an individual level these need to be conceptualised in a social context (see Dembe\(^15\)). Like other occupational injuries and illnesses, although the injured worker is normally the person most directly affected, occupational stress injury and illness has serious broader consequences including adverse effects in the following domains: vocational function (e.g. work ability, wages, productivity, employment, training), organisational performance (e.g. absenteeism, turnover, poor customer service, workers’ compensation claims), family relationships, community relationships (e.g. impact on social care agencies) and economic well-being\(^16\).

**Extent of the Problem**

Job stress is a widespread concern across all employment sectors and occupational levels, and is a commonly reported cause of occupational illness and associated organisational outcomes (e.g., lost work days, turnover, workers’ compensation claims). In Europe, stress-related problems are the second most commonly reported cause of occupational illness, following musculoskeletal complaints.\(^16\) Roughly one fourth of workers in the EU reported job stress as affecting their health in the 2000 European Foundation survey.\(^16\) Smaller—but still significant percentages—reported having experienced other adverse psychosocial hazards in the previous year, including bullying (9%), unwanted sexual attention (2%), acts of violence from people at work (2%), and acts of violence from other people (4%). Comparable figures are not available for Australian populations, however, they are likely to be similar to European estimates. Further, there is evidence that job strain, the combination of high job demands with low job control and the most widely studied job stressor, has been increasing in prevalence in Europe over the last decade.\(^17\) In summary, job stress and other psychosocial hazards – affecting the full range of occupational levels – are widely prevalent and represent a growing concern.

The link between occupational stress and adverse effects on mental and physical health has been well substantiated in a rapidly growing international literature on empirical studies.\(^18-20\) More specifically, various measures of job stress have been
Figure 1. Conceptual Framework of the Stress Process, Pg 263. Adapted from Figure 1 of “Action Research on Occupational Stress: Involving Workers as Researchers”, Copyright 1989 by Baywood Publishing Co. Permission to adapt obtained from author.
linked to mental health outcomes ranging from increased visits for psychiatric treatment, to psychological distress, depressive symptoms, general mental health, and three forms of depression.\[20-22\] This includes longitudinal or prospective studies in which measurement of job stressors preceded the development of depressive symptoms and psychiatric disorders.\[20, 22-24\] Of particular relevance to HCS workers, job strain and over-commitment or over-involvement in work (a component of the Siegrist ‘effort-reward imbalance’ model\[25\]) have also been associated with burnout in three cross-sectional studies of nurses and teachers.\[21\] Burnout has also been prospectively associated with cardiovascular disease (CVD)\[20\], the most studied job stress-related physiological health outcome.

Numerous cross-sectional studies (meaning that job stress exposures and health outcomes were measured at the same point in time) have linked occupational stress with physiological risk factors for CVD (e.g., hypertension, atherogenic lipids, elevated fibrinogen, overweight/body mass index) and with CVD outcomes (e.g., myocardial infarction, angina pectoris, doctor-diagnosed ischemia).\[18-20, 26\] In addition, theoretically based occupational stress measures have been shown to predict subsequent CVD outcomes after controlling for established CVD risk factors (e.g., smoking, overweight, etc.) in a dozen or more prospective cohort studies.\[18, 19, 27-29\] For example, a recent prospective cohort study\[28\] observed a doubling of CVD risk among industrial employees determined to be in high job stress categories by either of two prevalent theoretical models of job stress: Karasek’s Demand-Control model\[10\] and Siegrist’s Effort-Reward Imbalance model.\[25\] Similarly, a recently published multi-country ‘InterHeart’ case control study (N~25,000) published in the Lancet found a doubling of risk of acute myocardial infarction from job stress as well as additional risk from non-work stress.\[310\] This study included Australian subjects and found that risk patterns were consistent across regions, in different ethnic groups, and in men and women. In the most comprehensive systematic review of job stress and CVD to date, effect sizes for job strain as a risk factor for CVD (after adjustment for other known causes of CVD – so-called ‘confounders’) ranged from 1.2 - 4.0 fold increase for men and a 1.2 - 1.6 fold increase for women. Inclusion of various personality traits (e.g., negative affectivity) and states (e.g., minor psychiatric disorder) in job stress and CVD studies have shown that personality has little effect on the relationship between job stress and CVD outcomes,\[32\] with the possible exception of over commitment to work substantially increasing job strain-associated risk in women (see Belkic et al 2004 for review).\[20]\]

In summary, the direct effects of job stress on health are well established, and the effects of job stress on mental health are of particular relevance to psychological injury claims.

**Indirect Effects of Job Stress on Health**

The indirect effects of work on health are less well characterized, but evidence is accumulating on the relationships between working conditions and health behaviours, or between ‘job risks’ and ‘life risks’.\[33\] There are well-documented relationships between working conditions (such as safety risks, hazardous substance exposures, and job stress) and health behaviours (such as smoking, sedentary behaviour, diet, and alcohol consumption).\[34-38\] It is important to recognize that work can influence health in both positive and negative ways. Work can be organized so as to both strengthen the health-favourable influences and minimize the negative influences.\[39\] The latter
may operate as contributors to unhealthy behaviours or to limit an individual’s ability to make positive changes in health behaviours.\textsuperscript{[35]} For example, in one of the few prospective studies in this area, decreasing job stress over time was associated with a decrease in cigarette smoking among bus drivers.\textsuperscript{[37]} More recently, a prospective study of UK civil servants has shown that stressful psychosocial work environment (measured as “effort-reward imbalance”) increases the risk of alcohol dependence in men.\textsuperscript{[40]} In short, the traditional view of job risks and life risks as separate and independent requires revision. Rather, job risks and life risks are related to each other as well as being independent contributors to injury and disease.

\textbf{Estimating the Job-Stress Related Disease and Injury Burden}

General population-based estimates of the proportion of CVD attributable to job stress are on the order of 7-16\% among men for job strain assessed at a single point, and up to 35\% for long-term exposure to low work control.\textsuperscript{[41]} A generally accepted estimate is 10\%. Inclusion of other psychosocial hazards would expand these estimated work-related contributions to the CVD burden (e.g., precarious employment, shift work, long working hours).\textsuperscript{[42-45]} For example, a longitudinal study involving paper mill workers in Sweden showed that CVD risk increased with increases in exposure to shift-work conditions. It is estimated that risk is increased by 40\% by engaging in shift work.\textsuperscript{[46]} More comprehensive estimates of the job stress related health burden would need to include depression and other mental health outcomes, work-related suicide, the contribution of job stress to injuries, and the contribution of job stress to adverse health behaviours that indirectly affect health.

In summary, the epidemiological evidence indicates that job stress is rapidly emerging as the single greatest cause of work-related disease and injury. Compensated ‘psychological injury’ and other stress-related claims, despite their rise in Australia in recent years,\textsuperscript{[47, 48]} represent only a small fraction of job stress-related adverse health outcomes. Job strain, the most widely studied predictor of job stress, has been increasing in prevalence in Europe and may also be increasing in the US.\textsuperscript{[10, 26]} Comparable population-based job stress surveillance data is not available in Australia, but trends are likely to be similar to other OECD countries. Thus it is crucial that job stress interventions emphasise primary prevention (e.g., changes to work organisation) as well as including secondary (e.g., development of employee coping skills) and tertiary responses (e.g., treatment and case management).\textsuperscript{[49]} Urgent attention and action is required to prevent and control stress in the workplace.

\textbf{HCS – Background and Extent of the Problem}

Social work and human service practice frequently involves working with society’s most disadvantaged children, the poor, the aged and those in secure care, and is often accompanied by a high degree of trauma, distress, conflict and unhappiness for service-delivery recipients.\textsuperscript{[50-52]} High levels of stress have been reported for social workers, youth workers, and psychologists in the front line of human service work.\textsuperscript{[50]} Similarly in the health sector, nurses\textsuperscript{[53, 54]}, physicians\textsuperscript{[55]}, podiatrists\textsuperscript{[56]}, and psychologists\textsuperscript{[57]} have all been studied because of known stressful aspects of their occupations. Aboriginal health workers in particular report unbearable levels of distress as they manage overwhelming community demands and are continuously
exposed to trauma from high levels of illness, loss and grief in communities.[58, 59] The work of the GP has also been described as demanding and highly complex both interpersonally and cognitively, and GPs often work in social isolation from peers.[60, 61] The HCS sector also draws heavily on the work of volunteers to meet its objectives, and increasingly work stress research is being undertaken in volunteer samples.[62]

Particularly high levels of stress (relative to other sectors and occupations) are reported among HCS workers both nationally and internationally, especially for those in social work and nursing.[63-65]. In The Netherlands burnout rates for general practitioners is estimated to be around 41%.[66]

Numerous Australian studies in the HCS sector report high percentages of workers reporting high levels of psychological strain (using the General Health Questionnaire-GHQ – a measure of psychological distress): 22.5% in a heterogenous sample of public sector health workers (N=400)[68]; 25.7% in public sector human service workers (N=817) [50]; 33% in GPs (N=296) [60]; 22% (N=359); 19% in clergy (N = 400) [68], and 22.5% nurses (N=107).[69] These rates are nearly twice the rates reported in a national Australian sample (including workers) which showed using the GHQ that 10.4% are in the high to severe range of distress.[70] Burnout rates are significantly higher for podiatrists compared to other samples.[56] Few studies report low levels of distress for health workers - for example rural volunteer ambulance officers levels are comparable with normative samples (10.4%)[71] and emergency physicians report less anxiety and depression compared to the general population. [72]

Consistent with these high levels of stress, national and state figures show that the health and community services sector has the highest number of workers’ compensation claims (20%) for psychological distress compared to any other sector [8, 73-76] (see Attachment 1). This is despite the fact that the HCS comprises about 10% of the Australian workforce[77].

The causes of these high levels of distress have been summarised in the most recent systematic literature review of (mainly) health care staff (1984-99) by Michie and Williams[64]. Psychological ill-health and sickness absence were due to long hours worked; work overload and pressure, lack of control over work; lack of participation in decision making; poor social support; and unclear management and work role. Sickness absence was also associated with poor management styles.[64] Similarly a significant study not included in the Michie and Williams review found that of 33 698 US working women (nurses) those working in jobs combining high demands and low control (high strain jobs) showed lower vitality and mental health, higher pain, and increased risk of both physical and emotional limitations compared to workers in jobs combining high demands and high control (active jobs).[78] These risks were increased even further in jobs combining high demands, low control and low support (high iso-strain).[79] A systematic review of workplace stress in nursing (1985-2003) reported workload, leadership and management style, professional conflict and the emotional cost of caring as persistent sources of distress for nurses for many years. However an interesting observation was that lack of rewards and working shifts may be replacing some of these issues in order of importance. [79]

A study of Australian urban GPs[60] reported stressors as (in order): workload, economic factors, medicopolitical factors (involvement with professional associations, government pressures), clinical factors, effects of work on outside life and the physical work environment. Further work was ranked as the highest source of
life stress, followed by financial concerns and family relationships. The most frequent major stressor was workload "time pressure to see patients", and the threat of litigation was perceived as the most severe stressor.

Worldwide the nature of work has changed, and particularly relevant for the sector are increases in the levels of emotional and psychological demands (including cognitive demands) and a reduction in physical demands. The pace of work is increasingly dictated by consumers (clients/patients and so on) and there are increasing numbers of workers employed in the service sector.

High stress among workers in the sector is not merely an individual burden but threatens both the maintenance of a viable and healthy workforce and the capacity to provide quality services. One of the core ingredients of quality in general practice is the goodness of the patient doctor relationship. Early research showed GP job satisfaction and feeling at ease were associated with openness to patients and more attention to the psychosocial aspects of complaints, whereas a lack of time and frustration were related to a decrease in the tendency to provide explanations to patients and to an increase in prescribing. These days clinical decisions are increasingly made in the context of rapid throughput and time constraints and customer satisfaction with service quality is set to deteriorate as providers experience emotional exhaustion and depersonalisation (a tendency to treat clients as objects and distance oneself emotionally from one’s clients).

The National Academy of Sciences, Institute of Medicine found that medical errors kill from 44 000 to 98 000 Americans per year. Errors in turn are believed by those in the sector to be due in part to stress. In a UK study, 36% (82 of 225) hospital doctors and GPs self-reported recent incidents where they considered that symptoms of stress had negatively affected their patient care including expression of irritability or anger, and patient death. Attributions made for lowered clinical care were tiredness (57%), the pressure of overwork (28%), depression or anxiety (8%), and the effects of alcohol (5%).

Although stress has also been associated with errors (e.g. frequency of malpractice claims in hospitals) the problem is not intractable. Organisation-wide stress management interventions (training, employee assistance program, communication) have been shown to significantly reduce average monthly medication errors.

**Conclusion and Next Section**
HCS is a high risk sector for work stress with negative consequences for both the individual and the organisation. As demonstrated above in the broader literature there is strong evidence for the proposition that 1) work organisation factors predict adverse health and other outcomes, even after controlling for other possible causes of the same outcomes (e.g., socioeconomic status, personality characteristics). There is also significant evidence that 2) various stress prevention or intervention strategies have demonstrated effectiveness in the prevention or control of work-related stress.

In the next section examine the two propositions outlined above to establish the level of evidence for them specifically in the HCS using the most recent literature available. To inform current stress prevention practice to reduce levels of stress in the HCS sector we conducted two comprehensive reviews about 1) the causes and consequence of stress in the sector, and 2) interventions that have been successfully implemented to reduce stressors, and/or prevent or reduce ill-health.
References


Section 2
Review of Causes and Impacts of Stress in HCS

This section reviews the most recent literature published internationally and nationally on causes and impacts of stress in the health and community services (HSC) sector.

Search strategy

International
The following databases were searched: PsycARTICLES, PsycINFO, Academic Search Elite and Medline. Search terms for this paper included stressors, health and community services, work stress and occupational stress, searched as ‘and’ / ‘or’. The databases searches involved setting limiters to include the following: publications between 1999 and 2004, human participants, peer-reviewed, English language, and searching by all text and key words. We also conducted manual searches of the reference lists of relevant articles. We selected only studies that analyzed data with participants that were employed in the health and community services. Hence, we excluded studies using samples where individuals were not employed in the health and community services sector. With those studies that used sample populations that were not from the health and community services occupations and with removal of duplicates, 99% of papers were excluded. Articles obtained were then searched for further relevant studies. Colleagues that frequently write on the area of work stress were also contacted for relevant papers.

The 1999 cut off date was used to ensure the most recent literature was reviewed. The most significant HCS multi-occupation, the Michie and Williams review considered literature up until 1999. Their review was confined to outcome measures of psychological distress and absenteeism. Our review was more wide ranging and considered short-term strain and enduring health outcomes in the following domains: physiological, psychological and behavioural. We also excluded studies included in McVicar’s nursing review. We found 24 international studies published since 1999. Occupations included were nurses, ambulance officers and paramedics, physicians, x-ray workers, administrators, ancillary health workers, forensic physicians, hospital employees, general practitioners, and forensic/ community mental health nurses.

Australian
We used the same strategy as above to locate Australian papers. Given the smaller numbers of published Australian studies, and because of its potential local interest, we widened the scope of the search to include the grey literature (unpublished).

In total we found 10 studies published since 1999. The occupations studied were radiographers, clergy, emergency physicians, nurses, rural and urban ambulance officers, public sector welfare workers (social workers, youth workers, and community support workers), aboriginal health workers, rural nurses, podiatrists, allied health workers, ancillary staff, and general practitioners.
Attachment 2 reports the study authors, participants, response rate, work factors, outcome measures used and results of the study for the international review and Attachment 3 reports the same for the Australian review.

**Key Stressors Reported in the International and Australian Literature**

The main factors (stressors) associated with individual strain and health outcomes (see Section 1, Figure 1) are reported in Table 1.

**Table 1:  Key stressors reported in the international and Australian literature**

<table>
<thead>
<tr>
<th>Key Stressors</th>
<th>International Literature</th>
<th>Australian Literature</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Work demands</strong></td>
<td>§ workload, job insecurity, [3-12]</td>
<td>§ workload or pressure [13-21]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>§ insufficient time to complete scheduled work tasks [17]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>§ work-home conflict [18]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>§ relocation demands [13, 14]</td>
</tr>
<tr>
<td><strong>Emotional demands</strong></td>
<td>§ patient severity or type (e.g., violent or aggressive incidents) [8, 9, 22-25]</td>
<td>§ lack of patients/peers/community understanding of work role/realistic expectations [14, 20, 26]</td>
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<tr>
<td></td>
<td></td>
<td>§ customer-related social stressors [15]</td>
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<tr>
<td></td>
<td></td>
<td>§ demanding patients [20]</td>
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<tr>
<td></td>
<td></td>
<td>§ professional isolation due to institutional racism [21]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>§ emotional labour [14, 21, 27]</td>
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<tr>
<td></td>
<td></td>
<td>§ violence [27]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>§ traumatic work experiences [14, 26]</td>
</tr>
<tr>
<td><strong>Job Control</strong></td>
<td>§ low control (low skill discretion) [3, 4, 9, 10, 28]</td>
<td>§ low control [13, 14, 16, 18, 29]</td>
</tr>
<tr>
<td><strong>Support</strong></td>
<td>§ low support (e.g., unsupportive line manager) [3-6, 8, 22, 28]</td>
<td>§ low support [14, 16, 19]</td>
</tr>
<tr>
<td><strong>Rewards</strong></td>
<td>§ low rewards (e.g., no appreciation by others, lack of career development) [3, 12]</td>
<td></td>
</tr>
<tr>
<td><strong>Effort-Reward</strong></td>
<td>§ high effort-reward</td>
<td>§ high effort-reward</td>
</tr>
</tbody>
</table>
Imbalance (an imbalance between effort expended and rewards received)

Role
- role conflict (e.g. conflict between personal goals and organisational goals)[13, 14]
- role ambiguity (e.g. unclear about job role)[13, 14]
- general role issues[20]

Interpersonal conflict
- interpersonal conflict, [15]
- bullying, [14, 27, 32]

The results of the systematic review of both Australian and international literature published since 1999 are very consistent and reveal that high demands (workload), low support, low control, low rewards, effort-reward imbalance and emotional (client) demands were the most important factors associated with strain and enduring health outcomes. Further these findings are consistent with core theoretical predictions of the Demand-Control-Support model[33], and the Effort-Reward Imbalance model[34].

Violent and aggressive incidents and bullying were also associated with stress outcomes. These results corroborate the findings of the most recent systematic review by Michie and Williams[1] (literature 1987-1999) in the health care sector with the exception that we additionally identified emotional demands arising from client interactions (e.g., harassment, violence), interpersonal conflict in the workplace (e.g. bullying), as important predictors of psychological ill health and sickness absence at work. Evidence includes longitudinal studies, in which job stress measures taken at one point in time predict adverse outcomes measured subsequently.

Key Stress Response and Health Outcomes reported in the International and Australian Literature

In turn the stressors reported above were associated with wide-ranging adverse effects on individual strain and health outcomes. Table 2 shows the range of response/outcome domains, and key measures used to indicate them.
Table 2: Key stress response and health outcomes reported in the international and Australian literature

<table>
<thead>
<tr>
<th>Response/Outcome Domain</th>
<th>Key Indicator</th>
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<tbody>
<tr>
<td><strong>Psychological outcomes</strong></td>
<td>emotional exhaustion[^{9, 11, 14-16, 18, 20, 25, 28, 30, 31}]</td>
</tr>
<tr>
<td></td>
<td>psychological distress[^{3-5, 10, 12, 19, 27, 32, 35}]</td>
</tr>
<tr>
<td></td>
<td>anxiety[^{25}]</td>
</tr>
<tr>
<td></td>
<td>depression[^{29, 32}]</td>
</tr>
<tr>
<td></td>
<td>mood disturbance[^{17}]</td>
</tr>
<tr>
<td></td>
<td>lowered morale[^{19}]</td>
</tr>
<tr>
<td></td>
<td>job dissatisfaction[^{6, 11, 12, 16-18, 35, 36}]</td>
</tr>
<tr>
<td></td>
<td>depersonalisation (feeling personally detached from the job)[^{14-16, 18, 30}]</td>
</tr>
<tr>
<td></td>
<td>personal accomplishment[^{14-16, 18, 30}]</td>
</tr>
<tr>
<td></td>
<td>reduced quality of working life[^{19}]</td>
</tr>
<tr>
<td></td>
<td>reduced life satisfaction[^{29}]</td>
</tr>
<tr>
<td><strong>Physiological outcomes</strong></td>
<td>physical health symptoms[^{4, 10, 29, 35}]</td>
</tr>
<tr>
<td></td>
<td>fatigue[^{28}]</td>
</tr>
<tr>
<td></td>
<td>low back pain[^{37}]</td>
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<tr>
<td></td>
<td>protracted neuroendocrine (cortisol) reaction (stress hormone)[^{24}]</td>
</tr>
<tr>
<td></td>
<td>cardiovascular disease[^{32}]</td>
</tr>
<tr>
<td><strong>Behavioural outcomes</strong></td>
<td>absenteeism[^{19, 32, 38}]</td>
</tr>
</tbody>
</table>

The most common outcomes of exposure to work stressors demonstrated in the HCS literature were related to psychological outcomes. These were mainly of two kinds. The first type relates to energy depletion (e.g. emotional exhaustion, psychological distress) and the second to motivational responses (job dissatisfaction, lowered morale, reduced personal accomplishment and depersonalisation). Physical health impacts such as increased physical health symptoms, fatigue as well as protracted neuroendocrine reactions (i.e. cortisol—a stress related hormone) were also demonstrated. Behavioural outcomes such as absenteeism were also linked to job stressors. In turn it is predicted that these responses will affect organisational health and performance\[^{39}\] through:

1. energy depletion—over a prolonged period of time performance will be reduced because an individual’s energy resources will become depleted (e.g. through emotional exhaustion)
2. increased error due to cognitive strain
3. reduced motivation (reduced satisfaction, lack of personal accomplishment) or
4. Absenteeism. The evidence shows significant negative impacts of work stressors at the individual level including psychological, physical and behavioural responses and enduring health outcomes. In turn clear organisational consequences associated with a reduction in energy, reduced motivation, error, illness, and absenteeism can be inferred. Next we discuss key stressors and some issues pertinent to the Australian work environment.

**HCS Job Stressors: The Australian Context**

**Quantitative and Qualitative Demands**

While quantitative workload (how much work is required, hours of work) is important and is convincingly associated with strain, enduring health outcomes and organisational outcomes, qualitative emotional demands are particularly important in human service work because of direct contact with clients. Ongoing client contact requires sustained emotional effort which in itself can be taxing. Interactions that are specifically negative can have long-term impacts. In a longitudinal study of GPs, those who had been harassed by patients showed higher levels of burnout 5 years later. The experience of client-initiated violence for those in the sector is unfortunately a common experience, particularly for those in emergency departments, the ambulance service, mental health units, drug and alcohol clinics, and the aged care industry, and is associated with increased levels of stress.

In addition, negative emotion often associated with client-related stressors is frequently required to be regulated and expressed in desirable ways congruent with organisational requirements and codes of practice (so called emotional labour). Emotion regulation is often stressful, and particularly so when emotions need to be expressed in ways not genuinely felt by the employee (i.e., emotional dissonance; cf. [44]).

Evidence is clear that emotional demands (e.g., dangerous and violent clients, violent incidences, child protection traumas, death of a worker) are important. Some research shows emotional demands as more important than quantitative demands (e.g., workload) in relation to stress outcomes in human service occupations. Other research shows burnout is better predicted by general job characteristics than by stressors specific to human service experiences.

Furthermore, like numerous studies that show the potential moderating effects of job resources (high control, high support) on quantitative demands, there is compelling evidence that the negative impact of emotional demands on employees can be moderated by job control, social support, (these results are consistent with Demand Control Support model) and rewards (these results consistent with Effort Reward Imbalance model).

Emotional work demands are just as important in human service work as quantitative demands, and similarly their impact can be reduced by direct reduction, or offset by the provision of organisational resources such as high levels of control (including emotional control), social support and rewards. Many studies have found that emotional work is related to burnout and that control, social support, and rewards moderate the relation between emotion work variables and burnout.
Bullying and Interpersonal Conflict

While prevalence studies were not within the scope of the review, quite a few recent studies have examined the prevalence of bullying in the sector through self-reports: 18% - 37% of trainee doctors in the UK\textsuperscript{[52, 53]}, 40% in a study of British National Health Services Community Trust\textsuperscript{[53]}; 4% of social and health care workers in a random sample of Finnish citizens aged 25-64, Norwegian studies\textsuperscript{[54, 55]}; 3% of assistant nurses from hospitals and nursing homes, and 8% of health care workers in a sample of 2105.\textsuperscript{[55]} In turn, profound effects of bullying have been demonstrated in the longer term. In a well-designed longitudinal study, Kivimaki and colleagues showed that the experience of bullying predicted depression and CVD\textsuperscript{[32]} Bullying in the HCS sector is set to increase as Mayhew and Chappell\textsuperscript{[27]}, argue that the hierarchical structure of Australian hospitals and the financial strain experienced by them in the public sector render them potential breeding grounds for increased bullying in the future.

Interpersonal conflict was also an important stressor identified in our research, similar to McVicar’s review on nursing stress.\textsuperscript{[2]} Conflict and harassment also have profound effects on workers, leading to long term sick leave in nurses.\textsuperscript{[2, 56]}

Acute vs Chronic Stressors

A feature of human service work often invoked to explain levels of distress is exposure to acute stressors. Not only may workers be exposed to acute stressors, but they may also be required to treat or engage with others (i.e. clients) who have been so exposed (so-called vicarious traumatisation). Studies found that organisational stressors (such as lack of job autonomy, lack of supervisor support) were more significant predictors of emotional exhaustion and fatigue in ambulance officers and forensic physicians than acute stressors.\textsuperscript{[28]} This finding is similar to research with emergency service workers (including ambulance services) in New Zealand which found that organisational stressors were more important predictors of psychological strain than acute stressors.\textsuperscript{[36]}

An important finding in this area was uncovered in the study. Forensic doctors reported that the most disturbing acute events were experiences in which children were involved as victims of violence, sexual assault, ‘victims of suicide’ and situations that involved the death of a child. Further the study found a cumulative effect of acute event exposures such that the more forensic doctors were exposed to acute events the more they suffered from characteristic post-traumatic responses. There was no evidence to support the notion of resiliency build up due to exposure. In particular the study found that the experience of post-traumatic responses was an outcome of exposure to both acute and chronic stressors. Specifically lack of autonomy, poor communication and insufficient financial reward were related to post-traumatic responses, and an increase in these areas could potentially assist forensic doctors cope with trauma-related incidences.\textsuperscript{[28]}

To recap, chronic organisational stressors may be more important than exposure to acute stressors in accounting for stress-related health effects in human service work. Acute stressors (critical incidents) although clearly associated with post-traumatic reactions (more events, more distress), interact with chronic stressors and therefore could potentially be modified (for better or worse) by them. For example, improved autonomy, communication, and financial rewards can help to prevent and control the stress-related adverse effects on health.
The Socio-political Context: Work Intensification

Most research focused on organisational level work factors as possible precipitators of stress outcomes, whereas prevailing organizational stressors in the sector are clearly influenced by the broader legal, socio-political and economic context. For example, in Australia economic and social values that promote individualist rather than communal responses to social problems, have led to reduced resourcing in the health and community services sector. Government economic rationalist policies have further lead to managerial pressures for greater efficiency and effectiveness in the absence of increased resources. Due to limited resources there has been a shift away from a historic concern with community development initiatives, in the case of social work, to a greater focus on child protection work (although extremely important). A redoubling of demands occurs for human service professions as workload increases due to direct cut backs (i.e. personnel, institutional care), and less opportunity for preventive work, which then leads to a greater work load and work intensification especially for those in the front line (i.e., general practitioners). In other words a mismatch of demands and resource allocation emanating in part from the legal, socio-political and economic context may underpin the widespread strain evident in the HCS sector.

Relevant Macro-level Determinants

The lack of focus in research on the broader legal, socio-political and economic context has meant that “up-stream” interventions that focus on legal/policy changes have been avoided. Whereas an OHS regulatory intervention in theory should reduce job stress, most social or socio-economic trends that are relevant to job stress in this sector and others have been, in effect, interventions that intensify job stress rather than ameliorate it. New organisational practices such as organisational restructuring, downsizing, outsourcing, flexibility of labour, and increased utilisation of computer technology are examples of workplace trends that appear to intensify job stress. For example Houtman notes the...time pressure is recognised as a factor in the job demands-job control framework, but such pressure is also related to significant changes in workplaces of a more sociological and socioeconomic nature. Shortage of staff, tightened productivity targets and deadlines, customer demands, fragmentation in the workday and of tasks, are all factors leading to time pressure” (p.25).

A specific example of this is found in the Japanese HCS sector. Community psychiatric nurses working under recently introduced job specific work systems (N = 525) showed significantly higher levels of burnout compared to a control group (N = 525) not exposed to new work systems. Overwork in emergency services and lack of job control appear to be the factors underpinning the burnout.

Also, Kivimaki et al. showed in a longitudinal study of 1213 hospital nurses that differences in the organisation of nursing care predicted differences in sickness absence rates. After adjusting for demographic and ward characteristics, primary nursing was associated with significantly higher short-term (1-3 days) and longer-term (>3 days) sickness absence in relation to team nursing. Work organisation interventions—whether targeting job stress or not—need to be studied for their impact on employee health as well as organisational outcomes.
Risk Groups
Nationally and internationally it is clearly recognised that health and social services are high-risk occupations for work stress. Gender segregation by occupation is thought to underlie the heightened work stress risk of women.\cite{61} Because the HCS sector employs predominantly women and comprises large-scale employers, stress affects a disproportionate number of women. However compared to others, occupations within the sector generally are reported as high on demands, combined with low control; well know stress risk factors that could be the cause of high stress risk in women.\cite{61}

Aboriginal Health Work
A major challenge in Australian HCS work is Aboriginal health work. Evidence from Aboriginal Health Workers suggests prejudice, power imbalance, entrenched racist attitudes, poor training and unreasonably high and conflicting expectations from employers, clients, and the wide non-Aboriginal community, contribute greatly to stress.\cite{63} Aboriginal Health Workers often work in the communities to which they belong. Severe social, emotional, environmental, and physical health problems and resulting anger in these communities is thought to add to the stress levels of Aboriginal Health Workers.\cite{26}

Rural and Remote Work
Several issues arise in rural and remote HCS work. Professionals are challenged to provide generic rather than specialist services for which they are rarely trained, and to cope with numerous variations in emerging client issues without support. The buffer of anonymity available in metropolitan work, so helpful in maintaining client distance and affording stress recovery, is often not available in rural and remote work. The risk of violence appears heightened in isolated rural sites.\cite{27} Balancing of roles, community and family on the one hand and work on the other is especially difficult for Aboriginal health workers.\cite{26, 57, 59} Not all is problematic, however, as support networks appear greater for some rural workers (ambulance officers).\cite{64}

Limitations in the Research
A limitation of the research is that it reports predominantly about metropolitan workers yet there are equally important issues in rural and remote work. There is also a lack of empirical research on issues known anecdotally or through qualitative research to be very important in the sector. For example, Williams\cite{21} has outlined the inappropriateness of dominant research paradigms and the need for different methodology and reporting of stress in Aboriginal health professionals.

The research reviewed was mainly cross-sectional in nature which limits the potential to draw conclusions about causal relationships. This is because cross-sectional studies measure exposures and outcomes at the same point in time, and thus cannot formally 'prove' that exposure preceded (and thus lead to) outcomes. Longitudinal research on the other hand can provide an empirically sound basis for conclusions about the causal effects of job characteristics on strain and enduring health outcomes (and vice-versa).\cite{65} Nearly one-third of the international literature was longitudinal in design, whereas only one tenth of the Australian studies were longitudinal. Nevertheless the findings in general are consistent with a recent longitudinal review
which reports good evidence for the effects of work characteristics (demands, control, support) on stress outcomes.[65]

Most studies also used self-report measures of both stressors and strains which has the potential to lead to inflated effects. In 1 of 3 studies which used objective strain indicators, results showed support for the stressor-strain relationship. In the broader job stress epidemiology literature (including HCS as well as other sectors), various personality traits (e.g., negative affectivity) and states (e.g., minor psychiatric disorders) - when included in analyses of job stress in relation to adverse health outcomes - have been shown to have little or no affect on the magnitude of observed associations between job stress and CVD outcomes,[66] though controlling for negative affectivity or hostility in studies of depression and some other mental health outcomes attenuates risk estimates slightly. In short, observed associations between job stress and adverse health outcomes are work-related and cannot be explained by individual characteristics.

Conclusions
The literature demonstrates particularly high levels of stress in the HCS sector, both nationally and internationally. The evidence shows significant negative impacts of work stress at the individual (both psychological and physical health impacts) and the organisational level (e.g., absenteeism, job dissatisfaction, depersonalisation, lack of personal accomplishment).

The accumulated evidence in the health and community services sector shows that high quantitative demands (i.e., workload, work hours), high client demands (including violence and harassment), low control, low rewards, low support and interpersonal conflict (i.e., bullying and harassment) are associated with a range of poor health and organisational outcomes. These are the core stressors, but each occupation, and even the location of work leads to different stressors which can only be understood through continuous surveillance at both the organisational and local levels.

The results suggest that tackling these issues at their source should reduce strain and improve health outcomes. Importantly, significant empirical research shows increased levels of resources (control, rewards, support) can moderate the deleterious effects of high demands (quantitative and emotional).[65] While primary prevention of demands is recommended in some cases improving job resources to offset the impact of demands may be a promising way to assist workers cope with job demands in the interim. This is an important finding because jobs combining high demands (not excessive) with high resources may be the most challenging and interesting for workers – so called active jobs.[33]

Consequently there is clear support for the first proposition in HCS: work organisational factors predict adverse health and organisational outcomes, even after accounting for other possible predictors.[4] Therefore a reduction in stressors can lead to improvements in worker health and organisational outcomes.
References

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Section 3
An Analysis of Job Stress Interventions in HCS

Job Stress Interventions
Having established clear links between organisational aspects and the experience of distress in HCS workers we now examine the inference that stress interventions can prevent or control work stress in the sector. We examine interventions that aim to change the stressor at its source (primary prevention) or reduce the effects of stressors (secondary, tertiary intervention).

Using the Israel et al 1996 conceptual model of the work stress process as discussed in Section 1, we can conceptualise how these interventions target various points in the process. Primary prevention targets the psychosocial conditions, secondary interventions target the perception and short term response, and tertiary targets the enduring health outcomes (see Figure 1). Obviously the earlier the intervention, the more effective because the process is truncated. As shown in the figure, the levels of prevention should interact with each other, and activities at any level should feed into the other levels.

Figure 1. The work stress process and job stress intervention points
Conceptual Framework of the Stress Process, Pg 263.[1] Adapted from Figure 1 of “Action Research on Occupational Stress: Involving Workers as Researchers”. Copyright 1989 by Baywood Publishing Co. Permission to reproduce with modifications from the author.

Primary prevention addresses the sources of job stress and prevent it from occurring in the future. The goal is to reduce or remove job stressors (i.e. eliminate hazards at source) or improve resources (e.g. social support) and prevent employees from experiencing stress-related adverse effects on health. As such, primary preventive interventions target stressors at the level of the organisation and the physical work environment (see Figure 1). Primary prevention is best. Examples of primary level
preventations include improving organisational culture, changing employee workloads, job reengineering, job redesign, developing clear job descriptions to avoid role ambiguity, increasing worker involvement and participation in decision making, protecting workers from violent exposures (e.g. aggressive clients), policy development and maintenance, and redesigning the physical work environment.\[^{3}\]

Secondary level interventions focus on altering the way that individuals respond to stressors at work (including perception) and improving their processes of coping with short term stress responses. These interventions seek to either 1) help equip most or all employees with the knowledge, skills, and resources to cope with stressful conditions, or 2) target employees already experiencing negative short-term responses (symptoms) or other early signs of stress in order to prevent them from becoming more serious. These interventions may involve training for workers in the areas of health promotion or in psychological skills such as coping strategies, exercise, relaxation and meditation training.\[^{4}\] Very early intervention for those with stress symptoms, or for those reporting a ‘near miss’ incident could be considered secondary intervention.

Tertiary level interventions are directed at treating and assisting employees who have been exposed to job stress and have already developed stress-related enduring health outcomes (such as ‘psychological injury’, depression, or coronary heart disease). These interventions include occupational rehabilitation services, counselling and employee assistance programs (EAP), and return to work programs. In Australian workplaces these are generally employed following a workers’ compensation claim for psychological injury.

In addition to levels of intervention, job stress interventions are commonly categorised in terms of their target: being directed at the organisation, including features of the physical and psychosocial work environment (O), the individual level (I) or at the interface of the individual with the organisation (I/O) \[^{5, 6}\]

Organisation-directed interventions mainly focus on changing the work content and/or relations at work (e.g. job redesign/restructuring, communication). They aim to eliminate, reduce, or alter work stressors and are therefore mainly primary prevention. These interventions generally target all members of the organisation, or those in a particular job or category of job.\[^{6}\]

Individual/organisational interface interventions focus on changing the fit between the person and the organisation (e.g. clarifying an individual’s role in an organisation), and building resilience to specific stressors. The specific aim is to improve the employee’s functioning at work. These interventions are normally aimed at employees performing a certain task or only to employees who are showing signs of stress or are performing poorly.\[^{6}\] These interventions are mainly secondary interventions.

Individual or person-directed interventions target an individual’s characteristics and do not directly target work stressors. The assumption is that improvements in individual’s stress responses will spill over to positive effects in the work situation.\[^{6}\] Examples include exercise, relaxation, and cognitive behaviour therapy. These interventions are mainly secondary or tertiary (aimed at treating stress-related enduring health outcomes).

Kendall et al.\[^{7}\] recommends interventions at various stages along the prevention continuum, suggesting that the earlier the intervention, the more effective and longer
lasting it will tend to be. Earliness implies focus on the primary (organisation-focused), but it also refers to rapidity of response once an injury occurs.

Moving from the specific realm of work stress to OHS in general, the unifying framework for the prevention and control of occupational exposure and disease is the ‘hierarchy of controls’. This hierarchy states, in brief, that the further upstream one is from an adverse health outcome, the greater the prevention effectiveness. [8, 9]

Hence, primary prevention is more effective than secondary, and secondary is more effective than tertiary. Importantly, however, these are not mutually exclusive and can be used combination. [10]

Applying this general OHS principle to occupational stress: primary prevention through improvements in the work environment is complemented by secondary prevention to address individual factors and detect any effects of work stress in a timely fashion. This, in turn, would both minimise the need for rehabilitation or tertiary prevention programs and maximize their effectiveness. [11] In summary, the work stress intervention framework described above is consistent with broader OHS principles.

**Search Strategy and Selection of Intervention Studies**

We selected intervention studies in the health and community services sector from the most extensive review to date, the *Beacons of Excellence in Stress Prevention*, published by the UK Health and Safety Executive. [12] Using PsycINFO and Medline databases in September 2001 Jordan and colleagues obtained 28 publications post 1990 utilising key words: stress management, stress prevention; stress intervention; anxiety management. To this they added articles from previous reviews of stress management interventions by: the International Labour Office [13]; Murphy [14]; van der Hek & Plomp [15]; Parkes & Sparkes [16]; Kompier & Cooper [17]; and Murphy & Cooper [18]. Studies from various sources (e.g., in books reviewed by their expert panel) were added. Finally the following selection criteria were applied: removal of duplicate entries; sample sizes of at least 30; organisational interventions and not students or patients from clinical populations with conditions such as PTSD; and a minimum research rating of ** in accord with Murphy’s [14] taxonomy. This taxonomy of quality stress intervention research evaluations adopted also by Kompier and Cooper [17] uses the standards: ** = evidence obtained without a control group or randomization but with evaluation; **** = evidence obtained from a properly conducted study with pre and post measures and a control group but without randomization; ***** = evidence obtained from a study conducted with pre and post measures and a randomized control group. In total they found 74 studies of interventions in multi-sector occupational studies.

From these we selected studies pertinent to the HCS – there were 28 of these. We updated this data base by using PsycARTICLES, PsycINFO, Academic Search Elite, Emerald databases and the following interfaces: Kluwer Online, Wiley Interscience, Ingenta Select, Science Direct, NOHSC, Informit Search, Ovid, Oxford Journals, Harvard Educational Review, Occupational Health News, Cambridge, and Blackwell Synergy. Websites searched include Health and Safety Executive (http://www.hse.gov.uk), Institute for Work & Health (http://www.iwh.on.ca), NOHSC (http://www.nohsc.gov.au). We used identical search terms as above with ‘and’/‘or’ between terms. The databases searches involved setting limiters to include
the following: publications between 2001 and 2004, human participants, peer-reviewed, English language, and searching by all text and key words. Removing non HSC occupation studies and with removal of duplicates, 98% of papers were excluded. We also found a recent review by Mimura and Griffiths and so added studies from this that were not identified by other means.\textsuperscript{[19]}

In total 40 intervention studies post-1990 were identified: 28 from the Beacons of Excellence review (1990-2001), and after removing duplicates and student studies, 8 from Mimura & Griffiths (1990-1999), and an additional 4 studies (2001-2004).

Where the original studies could not be retrieved (e.g. thesis, lack of access) but were reported in Jordan et al (2003) or Mimura and Griffiths (2002) we used these as secondary sources to derive information about the studies. We assessed the studies for target occupation, sample size, intervention level/s, measurement, quality of research design, and effectiveness (see Attachment 4 for the full table).

**Target Occupations for Stress Intervention and Evaluation**

As shown in Table 1 nurses were predominately the target for stress intervention programs that were evaluated and published.

**Table 1: Target occupations for stress intervention and evaluation**

<table>
<thead>
<tr>
<th>Community Nurses</th>
<th>Schaufeli, 1995</th>
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<tr>
<td>Direct Care Nurses</td>
<td>Van Dierendonck, et al 1998</td>
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<tr>
<td>Domiciliary Care Nurses</td>
<td>Taris et al 2003</td>
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<td>Nurses</td>
<td>Freedy &amp; Hobfoll, 1994</td>
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<td></td>
<td>Griffiths, et al 2003</td>
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<td></td>
<td>Larsson, et al 1990</td>
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<td></td>
<td>Lee &amp; Crockett, 1994</td>
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<td>Lees &amp; Ellis, 1990</td>
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<td></td>
<td>Mollemann &amp; Kniippenberg, 1995</td>
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<td></td>
<td>Razavi, et al 1993</td>
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<td>Taormina &amp; Law, 2000</td>
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<td>Taylor, 1991</td>
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<td></td>
<td>Tsai &amp; Crockett, 1993</td>
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<tr>
<td>Oncology Care Providers</td>
<td>Le Blanc &amp; Schaufeli, 2003</td>
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<td>Psychiatric nurse</td>
<td>Kwant, 1992</td>
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<td>Forensic Nurses</td>
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<td></td>
<td>Ewers, et al 2002</td>
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<td>Carson, et al 1999</td>
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<td>Melchior, et al 1996</td>
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<td>Residential Care Nurses</td>
<td>Procter, et al 1998</td>
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<tr>
<td>Trainee/ Student nurses</td>
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<tr>
<td>Community Health Care Workers</td>
<td>Mikkelson, et al 2000</td>
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<tr>
<td>Emergency Services</td>
<td>Robinson &amp; Mitchell, 1993</td>
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<tr>
<td>Health Care</td>
<td>Bunce &amp; West, 1996</td>
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<td></td>
<td>Grossman &amp; Silverstein, 1993</td>
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<td></td>
<td>Lourijsen, et al 1999</td>
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<tr>
<td>Health Services Employees</td>
<td>Reynolds, et al 1993</td>
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<td>Hospital cleaners</td>
<td>Toivanen, et al 1993</td>
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<td></td>
<td>Toivanen, et al 1993</td>
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<tr>
<td>Hospital staff</td>
<td>Beermann, et al 1999</td>
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<td>Griffin, et al 2000</td>
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<td>Michie, 1992</td>
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<td>Michie, 1996</td>
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<td>Robinson &amp; Mitchell, 1993</td>
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<tr>
<td>Long-term Care Facility</td>
<td>Hyman, 1993</td>
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<td>Pharmaceutical Employees</td>
<td>Elliot &amp; Maples, 1991</td>
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<td>Poelmans et al 1999</td>
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<td>Teasdale, et al 2000</td>
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<tr>
<td>Physicians</td>
<td>McCue &amp; Sachs, 1991</td>
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<tr>
<td>Social Workers</td>
<td>Cahill, 1992</td>
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</table>
Types and Quality of Interventions

Each intervention was classified at the O, I/O, or I level, and was rated according to the quality of research design as described above. As shown in Table 2, of the 40 studies identified, 14 (34.2%) were I focused, 12 (29.3%) were I and I/O focused; 1 was solely O focused (2.4%); 3 were I/O (7.3%); 6 (14.6%) were I/O and O; 5 (12.2%) were comprehensive addressing I, I/O, and O domains. These proportions are similar to Jordan et al.'s findings except we found more I, I/O combinations (c.f. 18%) and less O (alone) interventions (c.f. 8%). Nine were of the highest causal inference rating (****), and of these most were individually focused interventions. Proportionally more high quality evaluations were conducted in less comprehensive studies, no doubt due to the ease of implementation of both the intervention and the evaluation.

Effectiveness of Interventions

Individual Interventions

I approaches were used alone in 13 studies and involved mainly relaxation or cognitive behaviour therapy (CBT). These approaches showed significant reductions in stress levels and symptoms, depression, mental and physical well-being, psychological distress, muscle tension, sleeping problems and nervousness, anxiety, symptoms of stress post a critical incident. Significant improvements were also reported in life satisfaction, normalised cardiac autonomic nervous system functions, satisfaction with self, perceived functioning at work, work satisfaction, coping skills, self-esteem, communication, and work atmosphere. Absenteeism levels reduced in both the control and intervention group (relaxation in hospital cleaners) possibly due to a ‘Hawthorne’ effect. There was only one study in which there were no changes in response (anxiety/stress) following the intervention (CBT/relaxation). In general, intervention approaches focused on changing individual short-term stress responses and were successful.

Individual/Organisation Interventions

Three studies utilised an I/O approach alone. Co-worker support groups reduced levels of stress and improved work effectiveness for health care professionals, and led to less symptom reduction in mental health nurses compared to a placebo group. However, level of stress decreased in the treatment group over time, leading Mimura and Griffiths to the conclusion that the ‘effect of the intervention is questioned, yet possibly effective’ (p.5). One study reported statistically significant differences in a control and intervention group, concluding that an educational program classified as personnel support was effective. However, although Mimura and Griffiths’ evaluation was that it was ‘impossible to estimate’, Overall, there is relatively little evidence to consider on the impacts of I/O approaches in isolation.
Combined Individual and Individual/Organisation Interventions

Combinations of I and I/O interventions were used in 12 studies (mainly combinations of relaxation, CBT and co-worker support groups) and led to improvements in various outcomes. These outcomes included psychological well being, trainee exam performance, increases in innovation (for the participation group), emotional stability, improved self-esteem and enhanced coping strategies. The combination of I and I/O interventions also led to reductions in various outcomes including short term physical and emotional reactions, burnout levels, stress symptoms, a decrease and stabilisation of mental and physical symptoms. Other outcomes included an awareness of stress management, more adequate coping compared to a non-treatment group, and positive evaluations of relevance/usefulness of the intervention program.

In one study, turnover intention remained stable in mental health care workers following a support group plus CBT intervention, but increased for the control group. Another study reported improvements in attitudes and understanding of clients along with a reduction in burnout levels. Two studies reported a change in work stressors and hassles and another that physicians were more aware of work stressors and support opportunities. One study reported improvements in attitudes and understanding of clients along with a reduction in burnout levels. Only two studies showed no affect on any of the outcomes examined (well-being, coping skills, life-events and stress awareness). Another study concluded that individual stress management for nurses is only partially effective (measures burnout, interpersonal skills, psychological awareness and socialisation) and that more comprehensive approaches are required. In general these intervention studies focused on changing attitudes and perceptions about stressors, and changing short term stress responses, and improving ones capacity to cope. Overall the combination of I, and I/O approaches appears effective in reducing short term stress responses, improving coping capacity and changing attitudes and perceptions about work stressors.

Organisation Interventions

One study used an O Job Stress Intervention (JSI) (job redesign, restructuring) alone. A new hospital work design was implemented, characterised by an increased delegation of responsibilities from head nurses to nurses and increased participation by patients in their health care during hospital stay. Perceptions of head nurses and nurses in the experimental group generally verified the shift in control (autonomy, consultation in decisions) from head nurses to nurses. Patients in the experimental group also perceived more control over their own stay and more control of nurses compared to a control group. Although doctors evaluated the performance of nurses more negatively in the experimental group, this was attributed to not being able to find the nurses (due to their increased role). Pagers were subsequently provided to nurses. No measures of stress response were taken in this study.

Combined Organisation and Individual/Organisation Interventions

Six studies used a combination of O JSI and I/O programs (predominately work reorganisation, communication, training, co-worker support groups, participation, autonomy, supervisor support, and feedback). The majority of studies reported changes in organisational or job characteristics including improvements in decision latitude, skill development, attitude to new technology, communication, and
social support. Improvements also occurred in leadership, professional interaction/ development, participation, recognition, goal congruence, idea support, trust, risk taking, and conflict reduction.

Most studies that utilised a combination of I/O and O JSI programs also reported changes in stress responses. Results included a reduction in levels of stress, improved morale, an increase in job satisfaction, and stable low absenteeism rates. For example, one study implementing individualised nursing care plans and supervision reported significant improvements in a creative and innovative work climate. In addition, results indicated a decrease in intensity and frequency of burnout in the experimental group compared to no change in a control group. Only one study observed no changes in stress levels (burnout scores) between the treatment and control group, although turnover was substantially reduced following the implementation of primary nursing in hospital wards (changing the work environment). An evaluation by Mimura and Griffiths stated that in this study there was an imitation of the intervention by the control group due to leaked information, making firm conclusions regarding a lack of effect (re burnout) problematic.

Overall, these studies found that O combined with I/O interventions increased stressor reductions and/or improvements in resources (e.g., social support), as well as improvements in both individual and organisational outcomes.

**Combination of Individual, Organisation and Individual/Organisation Interventions**

Five studies used a combination of I, O, and I/O approaches (i.e., training, communication, participation and autonomy, and job redesign). The studies reported significant reductions in absenteeism, a reduction in emotional exhaustion during an intervention period, a limited positive effect on work stress, and no increase in burnout scores (whereas a comparison group showed increases). Three of the studies also reported improvements in working conditions (e.g., decreased demands, increased social support) and the psychosocial work climate, as well as improvements in outcome measures.

The most comprehensive intervention and evaluation of all of the studies was that of Taris et al. who studied 26,563 domiciliary care employees from 81 organisations in the Netherlands. The study employed a comprehensive approach to stress prevention stimulated by national policy, and based on survey results (risk assessment). Taris et al. found convincing longitudinal evidence that job stress, emotional exhaustion, and job demands decreased, while emotional support, skill discretion, and decision latitude increased during the intervention period. Furthermore, the results indicated that organisations usually implemented a wide variety of measures as 68% of participating organisations implemented measures from the 3 main intervention groupings. However, O interventions, and not other kinds of interventions, were linked to job stress reduction. Finally, the study found that work-directed interventions led to a modification in the work environment, a reduction of demands, and increased support. The study was a stand-out in terms of its scope and comprehensiveness, not only in terms of the multi-level nature of the interventions, but also because of the extent of the needs assessment and long time frames for evaluation (2 years). The results provide good evidence of the pre-eminence of primary prevention, and change at source associated with a reduction of stress symptoms. Although work-directed interventions were clearly more effective than
other interventions, the authors argued that it is “possible that the combination of work-directed and other types of interventions (especially those that focused on the I/O interface) facilitated the effects of the work-directed interventions” (p. 322).

Similar to the O, I/O combination studies, the majority of O, I/O, I combination studies showed changes in work environment stressors and related stress responses. This finding is all the more significant because these studies examined more enduring health and organisational outcomes (e.g. health, absenteeism) over longer periods of time; 6 months, 1 year, 2 years, and 1-4 years.

In sum, I approaches alone or combined with I/O interventions appear effective in reducing short-term stress responses. JSIs combining O with I/O (with or without I), approaches show good evidence for the capacity to modify both stressors as well as more enduring health outcomes (e.g. burnout). Based on the evidence reviewed here, at least for the HCS sector, and as depicted in Figure 2, comprehensiveness of approach appears to be paralleled with comprehensiveness of effectiveness.

Discussion

We analysed 40 intervention studies published 1990 – 2004 and tested the inference that job stress interventions can reduce stressors and associated adverse effects on employee health and organisational functioning in the HCS sector. In particular we focused on various combinations of interventions to assess added benefits of various combinations of approaches.

In accord with previous findings and research in other occupational groups, we found that I level stress management interventions can be effective in reducing stress symptoms, improving coping responses and improving performance. Confirming previous findings, combinations of I techniques were particularly effective. Typical of individual focused interventions was the limitation of short follow up times raising questions as in the past about the sustainability of improvements. Furthermore, the range of measures used to assess efficacy were narrow, which is consistent with the target of individual approaches that focus mainly on individual short-term stress responses. Gains from I focused programs are evident but are less likely to be maintained over the long term without improvements in work conditions.

JSIs combining O and I/O approaches show good evidence for the capacity to modify both stressors as well as more enduring health outcomes (e.g. burnout assessed over longer periods). These results together with the conclusion from the most recent review of Health Circles in Germany (11 studies) that ‘health circles are an effective tool for the improvement of physical and psychosocial working conditions and have a favourable effect on workers’ health, well-being and sickness absence’, help to consolidate the evidence that job conditions can be modified and the change itself can be linked to improved health and well-being outcomes.

Individual Approaches Still Dominate

This study found that I approaches dominate the majority of job stress interventions. This is consistent with the findings of the two largest recent reviews, national studies in the UK and Australia, and all reviews conducted to date. These findings are in reverse order of preventive potential (explain). Furthermore, most
interventions are disproportionately focused on the worker and stress management rather than on the job/organisation and stress prevention. \[17\] Hence the job stress intervention trend is reactive, focusing on the effects of stressors, which shift responsibility to the employee rather than reducing the presence of stressors in the workplace. \[73][74\]

Reasons for the prevalence of I level interventions include management attitudes towards stress (i.e. invoking personality and lifestyle factors of workers as causal) and this limits more comprehensive approaches to prevention. \[17\] Without management support it is unlikely that adequate resources would be given to comprehensive approaches. Another reason is the complexity and cost of O level approaches making them less attractive to employers. \[16][59][73][75][76\] In contrast, the implementation of worker-focused interventions (I) are potentially cheaper, are less likely to be perceived as disruptive to organisational processes and do not conflict with employer attitudes. \[77\] Taken together, the lack of propensity to undertake primary prevention, and the difficulties in applying evaluation ‘theory’ to these approaches, no doubt explains the lower rate of O focused interventions reported in the evaluation literature.

Despite the relative predominance of I focused approaches and known challenges of work-focused intervention and evaluation, the evidence strongly supports the efficacy of approaches combining I/O and O level interventions. Consistent with previous research, more comprehensive stress management interventions that focus on the sources of stress (generally originating in organisational structures), the interface between the organisation and individual, as well as the symptoms of stress experienced by the individual are arguably the most effective. \[4][63][68\] Gains from I focused programs are evident but are less likely to be maintained over the long term because they do not tackle the source of the problem. \[36][61\]

**Focus on process**

Evidence is accumulating on the importance of the process, examining the question of how interventions are implemented in addition to the question of how effective the intervention was. The effectiveness of the approach adopted by organisations is

not dependent specifically on the type of programmes implemented, but whether a need has been established by consulting with employees and/or employee representatives, and by identifying and assessing risks, (pg 21.) \[4\]

Therefore more focus is needed in practice (and research) on the process of implementation.

While the evaluation frameworks presented here focused mainly on the impact of job stress intervention many researchers highlight the importance of process in intervention and evaluation. For example, Mikkelsen and Gundersen\[78\] using I/O and O approaches highlight the importance of process and participation of key stakeholders as a key success factors in their Participatory Action Research studies

when a proper and meaningful dialogue existed between the supervisors, employees, and instructor, the improvement methodology and improvement activities that were proposed were followed up and acted upon … the results were positive (p 108).

Success in stress interventions may be hampered by a failure to assess social and cognitive processes involved (i.e. the employee’s perception of the need for change), and whether the proposed intervention is regarded by participants as suitable for the
problem. Future research therefore needs to focus on process evaluation in addition to impact evaluation.

Building on the work of Kompier and colleagues, several recent publications highlight key elements of good practice in stress prevention intervention. These so-called evidence-informed principles are based on both qualitative (i.e. case study material) and quantitative research and in essence constitute evolving theory about stress intervention. The principles include the need to be stepwise and systematic; an adequate diagnosis or risk analysis; combine both work-directed and person-directed measures; use a Participatory Action Research approaches (worker involvement); develop local theory; have top management support; evaluate for costs and benefits of the intervention and in terms of health and productivity outcomes; and have upward and downward communication systems. It is impossible to evaluate the interventions against these principles because they are often not addressed in reports. However, some good exemplars are evident.

The Need for Economic Studies
Our review of stress causes in the HCS sector (see Section 2) showed important enduring health problems for workers resulting from work stress that have clear implications for organisational health and performance and can clearly affect the ‘bottom line’. Cost-benefit analysis of stress and job stress interventions could therefore be potentially important in changing prevailing management views about job stress interventions (e.g. individual problems, individual approaches cheaper and easier to implement, organisational approaches disruptive to operational imperatives and organisational structures) and justifying the allocation of resources for job stress interventions. Researchers could work more collaboratively with economists to highlight the cost and benefits of primary prevention, for example in terms of the cost of the intervention versus improvements in organisational outcomes (productivity, sickness absence rates and accident rates).

Novel Developments in Job Stress Interventions in Other Sectors
In recent years, integrated occupational health and workplace health promotion intervention studies have begun to appear in the literature. Although to date these have been conducted in manufacturing settings, integrated intervention strategies could also be considered in the HCS sector. The Brabantia Project, a 3-year intervention in a Dutch manufacturing company, included individual-level health education on a range of ‘lifestyle’ and OHS issues, as well as a lunch-time physical activity program. At the organisational and environmental levels, the intervention included supportive changes for individual-level ‘lifestyle’ activities (e.g., creation of an on-site exercise facility) and primary preventive work organisation changes to reduce job stress (e.g., expansion of workers’ decision authority over production processes). Evaluation showed that employees had significantly greater changes in intervention compared to a non-intervention control group for cardiovascular health risks (decrease), psychological job demands (decrease), job control (increase), and ergonomic risks (decrease). In addition, these changes were paralleled by a significant drop in sickness absence in intervention (15.8% to 7.7%) versus control (14.3% to 9.5%) groups, which by the company’s determination yielded a positive financial return on its investment in the project. This study design did not attempt to determine the specific contribution of each intervention component to sickness absence. Rather it identified a reduction in sickness absence for the organisation as the
desired outcome and a reduction in established health risk factors for employees (intervention components) as the means to achieve that organisational outcome. Given the relevance of physical ergonomic risk factors in the HCS sector, the rapidly growing evidence of causal links between job stress and musculoskeletal disorders, and the potential additional employee health benefits from health behaviour change, interventions that encompass job stress along with other OSH or health behavioural risks should be considered for the HCS sector.

Conclusions
This study sought to review job stress intervention evaluation studies in the health and community services sector published in the international literature since 1990. Overall the studies show that job stress interventions, particularly those including O approaches, can reduce stressors shown in previous research to be associated with both short-term stress symptoms and more serious health outcomes (e.g. depression, heart disease). Furthermore, approaches combining various Individual level interventions can be effective in reducing short term symptoms. In particular the finding that stressors in the form of job characteristics can be modified by JSIs demonstrates that they are amenable to change. Comprehensive JSIs that include Organisation, Individual/Organisation and Individual interventions in particular are the least applied JSIs but can potentially produce changes in organisational and work characteristics as well as improvements in health and organisational outcomes. More interventions focused on comprehensive approaches responsive to organisational/employee needs, and more evaluative research that particularly focuses on implementation processes and economic outcomes is required. In sum, support for inference two is also very clear in the health and community service sector; job stress interventions can reduce stressors and associated adverse effects on employee health and organisational functioning.
Stress Intervention Studies in the HCS Sector
1990-2004

Figure 2. Stress Intervention Studies in the HCS Sector 1990-2004
References

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Section 4
Early stress injury management

Issues in relation to early injury management
In contrast to the literature on stress causation and prevention, the literature on injury management is very limited. Here we present findings from relevant research which particularly focuses on early stress injury management themes. But it is important to consider that job stress-related injuries encompass far more than ‘psychological injuries’ and may include enduring health outcomes (e.g., cardiovascular disease, musculo-skeletal disorders, immune deficiency disorders, and gastro-intestinal problems).

The work stress claim is for many organisations the only communication system available to report and observe stress in the work place. Research indicates chronic stress is a ‘slow accident’ and can be observed well before a stress claim is made. However mental health stigma in the workplace is prevalent and a tendency by others to view stress as an individual weakness thwarts the reporting of stress by workers.\[1\]

Once stress is experienced the worker and the organisation may manage the symptoms or injury. However, the cost of ongoing health care and reduced workability may lead the worker to seek compensation for work stress through a ‘stress claim’. Invariably the cost of stress claims (e.g. time off, health care costs) to insurers and organisations drives action towards cost containment and to reduce claims. Inevitably then, discussion about how to improve injury management (e.g. the worker regaining health) often becomes muddied with discussion about claims management imperatives (reducing the cost per claim) because of their contemporaneous nature. These positions if not balanced could lead to early return to work that is not durable because the worker is not well, or the work environment is not adequately prepared (e.g. resolving interpersonal conflict with supervisor or engaging peers in the rehabilitation process). The rehabilitation process itself is further complicated by the complex interplay of multiple and often competing interests (legal, medical, insurer, rehabilitation, employer and worker) that unmanaged can lead to protracted claims.\[1-3\] The adversarial nature of the claims process, in particular the investigation, leads stakeholders to take entrenched positions and the focus becomes one of blame attribution rather than remediation and problem resolution.\[3, 4\] Further, the medicalisation of the problem through the required diagnosis of ‘psychological injury’ shifts the focus of the problem of intervention away from stressors and work organisation and on to the ‘patient’ and clinic.

The stress claim provides the injured worker with medical and financial support, but the process is socially problematic and in itself stressful. Psychological claims are about four times more likely to be rejected than other kinds of claims and the investigation process is reported by claimants to be particularly difficult and—ironically—stressful.\[1, 5\]

There are very long reporting delays with psychological injuries compared with other workplace injuries.\[6\] Comcare\[5\] reports that most stress claims develop over a relatively long period (6 months to a year or more). Claimants are found to report up to double the rate of sick leave in the 12 months prior to submitting a stress claim, and often report taking other kinds of leave (e.g. long service leave or sick leave) before
putting in a stress claim.\textsuperscript{[1]} Therefore intervention targeted much closer to the onset of strain will offset harm to the individual, and the costs of leave or of a protracted claim.

The link between exposure to psychosocial risk factors and absenteeism has been shown in Section 2 above, in other Australian research (> 7000 employees in numerous occupations)\textsuperscript{[7]}, in the Whitehall II longitudinal cohort study (5 years) of 10,308 British white-collar employees in relation to long spells of sickness absence, and specifically in health workers.\textsuperscript{[8]} Long absence spells may therefore be indicative of individual attempts to cope with stress.\textsuperscript{[9]}

Organisations generally have no informal system whereby the experience of stress can be communicated and no means to detect that long absences could be stress related. Late notification then jeopardises early intervention. For psychological injury claims, the time taken between the date of injury and the date of determination is over 5 months, and is twice the amount of time taken for other injuries.\textsuperscript{[5]} About half of this time (2-3 months) is due to the delay in employees lodging a claim.\textsuperscript{[5]} In the SA public sector the accident report gap and time between the report and claim determination is estimated to be well over 50% of the duration of the claim.\textsuperscript{[1]}

Long delays result from stigma and in some cases a belief that reporting stress is a career damaging action.\textsuperscript{[1]} Beliefs and perceptions regarding stress and stress claims within the workplace and the organisational culture (e.g., communication between managers and workers, acceptability of stress as a legitimate injury, etc.) play a much more important role in psychological injury and the claims process compared with other workers’ compensation claims.\textsuperscript{[1]}

Thus, in the majority of cases, by the time a stress claim has been lodged it is time for ‘late injury management’. For workers in organisations without appropriate communication systems, or informal reporting/warning systems (e.g. near miss) the stress claim is the only way to communicate a serious psychosocial situation.\textsuperscript{[6]} Early intervention processes need to be developed that build communication processes upward.\textsuperscript{[10]} The evidence points to the importance of attitudes towards and stigma about psychological injury and its impact on reporting delays - delays that may eventually lead to a more costly outcome for the individual and the organisation.\textsuperscript{[4, 5]}

The potential damaging effects of aggressively opposing claims at the personal level (exacerbating symptoms, prolonging resolution) and the organisational level (protracted and lengthy review process, cost) is being increasingly recognised by Australian insurers as more costly than accepting the claim, and has led some agencies to recommend that the majority of stress claims be either accepted or accepted for a closed period (see Attachment 5, South Australia). This innovation communicates to the worker that they can rely on the organisation to help them when they have been unable to resolve issues alone, and should help to build trust between the worker and organisation.

In addition advocacy and mediation using professionals with a strong mental health background and vocational rehabilitation experience is being advocated in some workplaces as a way to assist in the resolution of communication problems and conflict that can easily escalate in the claim process (see Attachment 5-Examples from the private sector-GIO Suncorp).

While professional intervention is thought to be the only way to assist those experiencing stress at work, evidence is increasing regarding the crucial role of care
and support by the organisation, and well trained supervisors. Incredibly yet repeatedly sufferers report little or no contact with supervisors or coworkers when an injury requires time off.[4] Yet contact and communication from coworkers and supervisors is shown to be associated with early return to work for employees with mental health problems (but non-depressed)[11] and following back injury.[12] Even in the case of critical incidents, interventions involving supervisor support may be just as important for recovery as those received from more experienced professionals in the form of debriefing (e.g.,[13]). Swift supportive responses to workers reporting stress (‘people’s immediate reaction’) is argued to be the single most important principle in early injury management.[14] Of course the helpfulness of supervisor support would also depend on the relationship of the worker and peers/supervisor before the injury, and the nature of the contact.

Finally the prognosis of the claim may be affected by the ‘others’ perceptions’ about the causation of injury. For example, a study of human service workers found that psychological injury resulting from chronic work stress (as opposed to a critical incident which can be ‘observed’ and viewed as more legitimate) had a poorer prognosis in terms of claim duration and return to work outcomes.[4]

Workers experiencing heightened risk at work may be identified by monitoring the work environment and by monitoring long spells of sickness absence.[6] Also those reporting previous claims are at risk because they continue to report high levels of distress when back on the job, and many report no change in job conditions (for example, high job stress doubles the risk of second heart attacks for people returning to work after a first heart attack).[1, 15]

Notwithstanding the need for primary prevention, timely tertiary intervention (organisational social care, rehabilitation and return to work) is required when workers are injured. In addition to managing individual cases, the occurrence of cases and the information gained about hazards and risks should feed back to primary prevention. In this way, lessons learned at the tertiary level can be used to prevent future cases from arising by addressing job stress issues at their source.

In conclusion, the lack of understanding of stress in the workplace, and the belief that it is an individual phenomenon, has led to the management of stress injuries that has been shrouded in suspicion. In turn, this has led to more intensive investigation and medicalisation of the problem, and more disputation of these claims in comparison with other kinds of claims. A lack of understanding and communication has also led to more entrenched positions by stakeholders involved in the claims process rendering them less likely to be resolved early. The resulting stigma associated with ‘stress claims’ and a lack of appropriate structures has led workers to fear reporting stress-related issues. Therefore, they may not communicate effectively about workplace stressors and strain, resulting in lengthy delays in reporting, which in turn jeopardises successful secondary and tertiary interventions. In sum, there are complementary roles to play for primary prevention, and secondary (better communication systems for reporting stressors and stress reactions) and tertiary intervention strategies (acceptance of all new claims). Secondary or tertiary interventions in isolation cannot compensate for the absence of primary preventive measures. Tertiary and secondary interventions, when fed back to guide primary intervention efforts, can greatly increase the efficiency and effectiveness of primary preventive interventions.
Section 5
Identification of Stress Prevention, Intervention and Management Strategies in Australian Workplaces

Relative to recent years there is significant project activity in stress prevention, intervention and management in nearly all Australian jurisdictions (see Attachment 5). In particular most of the activity is being stimulated by state WorkCover agencies (regulators and workers’ compensation authorities), with a view to influencing the practice of stress prevention, intervention and management in the other organisations within the jurisdiction.

A clear stimulus for the widespread activity is the cost and increasing rates of workers’ compensation claims for psychological injury. This is nearly always mentioned as a rationale for the intervention. Facts are cited such as ‘the average costs of the claim are around twice the cost of other workers’ compensation claims’ and ‘time off on stress claims is twice the length of other claims’. Cost to workers and organisations are also mentioned but never as saliently as the financial cost of the stress claim. Finally, although each of the jurisdictions operates under requirements to provide a duty of care to employees under Federal, State and Territory OHS legislation, this imperative is rarely mentioned as a stimulus for intervention.

Understanding the stimulus helps one to comprehend the kind of intervention implemented, planned or recommended. For example focusing on reducing claims cost, raises questions about the approach used to manage stress claims. This has led to a preponderance of tertiary intervention activity aimed at minimising the length of the claim (and associated costs), and secondary intervention approaches, (particularly early intervention) aimed at reducing the incidence of claims, or the length of the claim.

Focusing on reducing the rates of stress claims has led to a great deal of activity in the analysis of the stress claim data. Currently data on the reasons for claims within organisations is very crude and is often clumped into six or so categories. Further analysis of claims has been undertaken in some agencies (See Attachment 5, Examples from the public sector, South Australia, Office for the Commission for Public Employment). For example this approach led to the conclusion that conflict at work (disputes with supervisors, and managers over workload/performance; bullying, harassment) is one of the leading causes of stress claims (Attachment 5, Examples from the public sector, South Australia, Justice Portfolio). In turn this has lead to interventions from conflict resolution training (Attachment 5, Examples from the public sector, Victoria, Victoria Police) to workplace mediation approaches to early stress intervention (Attachment 5, Examples from the private sector, GIO Corp, NSW). The efficacy of these interventions is not yet known.

Research on stress claims has also led to the observation that claims have a long gestation period so that early psychological or physical health symptoms may be detected much earlier than is currently the case. Upskilling managers for early recognition, and for confidence and skills to proactively engage with at risk
employees and steer them into appropriate support resources is one strategy currently being trialled (Attachment 5, Examples from the public sector, Comcare).

The problem with approaches aimed at managing the stress claim is that 1) although it is likely to lead to a reduction in monetary costs—perhaps due to better management—it is not an effective way to reduce stressors, or therefore the numbers of claims; 2) it is a crude substitute for an examination of stress causation—we know that stress claims under-represent the numbers of workers experiencing stress-related adverse effects on health; 3) performance indicators that set targets of reducing stress claims (Attachment 5, Examples from the public sector, South Australia, Justice Portfolio) may create pressure on workers not to exercise their right to compensation, and 4) it is erroneous to conclude that the most stressed workers put in a stress claim; they may also leave, disengage or simply burn out.

Whilst many approaches have been driven by the stress claim statistic, some approaches have taken a primary preventive approach through the use of risk management approaches or changes to the work organisation (Attachment 5, Examples from the public sector, Vic WorkCover Stress Prevention Pilot; Comcare) approaches which explore wide-ranging psychosocial hazards i.e. monitoring) as plausible causes of stress and set about trying to modify risks identified are more likely to be driven by humanitarian and moral imperatives related to rights to work in a healthy and safe work environment rather than merely claims reduction. Indeed, this is a legislative requirement in all Australian jurisdictions. The approach adopted in the Vic WorkCover 2 Stress Prevention Pilot exemplifies this primary approach and similar to Comcare (see Attachment 5, Examples from the public sector) also aims to build capacity in the workforce to identify and modify psychological hazards.

Primary prevention approaches use different kinds of evidence to inform, tailor or specify interventions (compared to stress claim interventions). Of increasing interest in the jurisdictions is the surveillance of hazards, and how to do this in a cost effective manner. Many organisations routinely implement employee opinion surveys (EOS) that measure operational and motivational aspects of work. There is an argument that aspects of the EOS could point to psychosocial hazards and therefore could inform intervention points (Attachment 5, Examples from the public sector, ComCare). Certainly the EOS provides a surveillance platform and its repeated implementation means that evaluation of organisational interventions is possible. In its current form the EOS is limited but with the inclusion of psychosocial hazards and stress outcomes measures could prove to be a cost efficient way to assist in monitoring psychosocial risk (Attachment 5, Examples from the public sector, Vic WorkCover Stress Risk Management Plan).

In sum, the stimulus for activity in Australia is mostly from workers’ compensation bodies and sometimes the prevention and control arm of regulators, and it is mainly secondary/tertiary intervention aimed at stress claim cost reduction. Large-scale primary prevention projects, which could be complemented by these approaches, are also emerging with evaluation plans in place. There is virtually no evaluation information available to date to determine the efficacy of the various interventions, but this is set to change in the near future.
Section 6
Towards a Model of Job Stress Prevention

Evidence-based practice in public health interventions means implementing interventions which are shown, mainly through quantitative and statistical approaches, to be effective and successful. Evidence at its best is derived from carefully controlled randomised experiments conducted in rigorous conditions such that there is no doubt that the intervention itself led to changes in outcomes, and that the intervention effect was independent of the context. The approach is highly suited to medical intervention research. Work stress interventions, on the other hand, take place in a real world where the context and circumstance matter, and where the context itself is in a constant state of change (e.g. turnover, restructuring, downsizing). A number of limitations in the evidence base have been highlighted above, not least being the lack of organisational level interventions because of their complexity, and that work organisation change invariably means that management has to change, share power and, or spend money.

Therefore, consistent with developments in public health policy and practice, we argue for an evidence-informed approach to stress prevention, where a wider type of evidence informs more complex judgements about prevention interventions in different social (rather than clinical) settings. Ascertaining why an intervention works or does not work, understanding the process by which the intervention and outcomes are linked, and understanding the ways in which context (e.g. attitudes, previous experience with projects, sabotage) influences the success or failure of an intervention requires evidence wider than that required in merely answering the question ‘what works’? Evidence-informed principles based on both qualitative (i.e. case study material) and quantitative approaches (i.e. systematic reviews), can be readily derived from the literature and recommended for successful stress prevention: 1) Follow a careful planning process; (2) Involve workers in the design and evaluation of the intervention; (3) Obtain support for the intervention from all layers of the organisation; and (4) Base the intervention on a conceptual model.

Additionally, the following are considered important for early intervention because of the potential to improve lay understanding of work stress, its causes and impacts, and to establish a culture of action and organisational support and care: 1) continuous surveillance of risk factors, participation of workers and management alike in understanding risks and identifying appropriate intervention strategies, 2) communication systems (particularly upward for example of ‘near miss’ incidents) are key to early intervention, and 3) top management support for stress prevention interventions is imperative for validation of the issue for workers, and for appropriate allocation of resources.

The modelling of an effective prevention approach is necessarily evidence-informed drawing evidence from both quantitative approaches (the evidence mainly presented here) and qualitative approaches (e.g. using participative techniques). The model discussed in the report is grounded in the expert experience of the stakeholders, and will therefore reflect the reality of everyday life in the health and community sector organisations and will be tailored to meet their needs (context and circumstance).
Conclusion
In conclusion, the evidence base of causes of work stress in the HCS sector is strong and clearly identifies work organisation factors. These are amenable to change particularly through primary prevention approaches, which combine organisation-level approaches. In combination with secondary and tertiary interventions these changes should lead to improved health and well-being outcomes for individuals and organisations. The modelling of a stress prevention model is necessarily evidence informed. Drawing on principles of best practice and the everyday experience of those in the sector, the model so derived should lead to improved outcomes for both the individual and the organisation.

References
Attachment 1. Work Stress Injury Claims by Industry, National and State

**Figure 1.** Work stress claims by industry (NOHSC, 2003).


*Note figure constructed from data provided by the source reference.*
Figure 2. Stress claims by industry in New South Wales (WorkCover NSW, 2003)
*Note figure constructed from data provided by the source reference.

Figure 3. Work stress trends in Victoria (Vic WorkCover, 2004)
*Note figure constructed from data provided by the source reference.
Figure 4. Work stress trends in South Australia (WorkCover SA, 2003)

*Note figure constructed from data provided by the source reference.
### Attachment 2. International Studies of Stressors and Outcomes in HCS

<table>
<thead>
<tr>
<th>Study</th>
<th>Design</th>
<th>Participants</th>
<th>Response rate</th>
<th>Work factors</th>
<th>Outcomes</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bakker, Killmer, Siegrist &amp; Schaufeli (2000)</td>
<td>Cross sectional</td>
<td>204 nurses (Germany)</td>
<td>Not enough info provided to calculate</td>
<td>Job demands (work pressure, responsibility, control, patient distress), rewards (esteem, salary)</td>
<td>Maslach Burnout inventory (MBI)</td>
<td>Effort reward imbalance (high job demands, low rewards) was predictive of both emotional exhaustion and depersonalisation. Moderated by overcommitment for EE and PA.</td>
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<td>Study</td>
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<tr>
<td>2. Bakker, Schaufeli, Sixma, Bosveld, van Dierendonck (2000)</td>
<td>Longitudinal</td>
<td>207 GPs (The Netherlands)</td>
<td>88%</td>
<td>Patient Demands Mechanic (1970). (<code>A patient who threatens you physically'). Lack of reciprocity in the relationships e.g., </code>I feel I treat some of my patients as if they were impersonal objects'.</td>
<td>MBI Burnout was measured using the Maslach Burnout Inventory (MBI; Maslach and Jackson, 1986), consisting of three subscales: emotional exhaustion, depersonalization, and personal accomplishment.</td>
<td>Demanding patient contacts produce a lack of reciprocity in the GP-patient relationship, in turn, depletes GPs' emotional resources and initiates the burnout syndrome. Emotional exhaustion, in turn, evokes negative attitudes toward patients (depersonalization), and toward oneself in relation to the job (reduced personal accomplishment). This major finding suggests that GPs who attempt to gain emotional distance from their patients as a way of coping with their exhaustion, evoke demanding and threatening patient behaviours themselves.</td>
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<tr>
<td>3. Brough (2004)</td>
<td>Cross sectional</td>
<td>232 ambulance officers (New Zealand)</td>
<td>46%</td>
<td>Operational hassles (e.g. showing an interest in people, hoax calls), organisational hassles (e.g. paper work, no recognition), Impact of events scale (IES)</td>
<td>Job satisfaction, general health questionnaire (GHQ-12)</td>
<td>Organisational stressors were predictive of job satisfaction (to a greater extent than trauma symptomatology)</td>
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<tr>
<td>Study</td>
<td>Design</td>
<td>Participants</td>
<td>Response rate</td>
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<tr>
<td>4. Bussing &amp;</td>
<td>Cross</td>
<td>721 home care service employees (Germany)</td>
<td>55%</td>
<td>Physical violence, verbal aggression by patients, relatives</td>
<td>Negative psychological outcomes measure, mental and physical health (SF-12), Maslach Burnout Inventory (MBI-D)</td>
<td>Violent and aggressive incidents were associated with mental strain and burnout. Most important was verbal aggression by patients, fully mediated by negative emotional reactions after aggressive incidents.</td>
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<td>Hoge (2004)</td>
<td>sectional</td>
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<td>5. Calnan,</td>
<td>Cross</td>
<td>1089 general practitioners, practice managers, receptionists, administrator</td>
<td>70%</td>
<td>Job Content Questionnaire (Karasek) demands (intrinsic and extrinsic), control, social support, rewards</td>
<td>Mental health status (GHQ-12), job satisfaction measure,</td>
<td>Control, social support, rewards, intrinsic effort (demand) related to lower GHQ.</td>
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<td>Wainwright &amp;</td>
<td>sectional</td>
<td>s and clerical staff, practice and district nurses and health visitors of a</td>
<td></td>
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<td>Extrinsic effort, job demands, positively associated with GHQ.</td>
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<td>6. Cheng,</td>
<td>Longitu</td>
<td>21,290 nurses</td>
<td>68%</td>
<td>Job control, job demands, support</td>
<td>Poor health</td>
<td>DCS associated with poor health baseline and functional decline over 4 years. Iso-strain associated with greatest decline.</td>
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<td>Kawachi,</td>
<td>dinal</td>
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<td>Coakley,</td>
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<td>Schwartz &amp;</td>
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<td>Colditz (2000)</td>
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<td>Study</td>
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<tr>
<td>7. Coffey &amp; Coleman (2001)</td>
<td>Cross sectional</td>
<td>80 forensic community mental health nurses (UK)</td>
<td>77%</td>
<td>Caseload, discuss problems with colleagues, supportive supervisor.</td>
<td>Maslach burnout inventory (MBI) general health questionnaire (GHQ-28) and community psychiatric nurse stress questionnaire (CPNSQ).</td>
<td>Higher case loads size related to higher GHQ and emotional exhaustion. Support from managers and colleagues associated with lower levels of distress.</td>
</tr>
<tr>
<td>8. de Jonge, Dormann, Janssen, Dollard, Landeweer d &amp; Nijhuis (2001)</td>
<td>Longitudinal</td>
<td>261 health care professionals (The Netherlands)</td>
<td>57%</td>
<td>Job demands, the Maastricht autonomy questionnaire (MAQ), workplace social support (VOS-D, Bergers, Marcelissen &amp; De Wolff, 1986)</td>
<td>Dutch Maslach burnout inventory (Schaufeli &amp; Van Dierendonck, 1993), job satisfaction and work motivation.</td>
<td>After controlling for negative affectivity, job characteristics influenced psychological well-being. Specifically job demands (-) and workplace social support (+) were associated with job satisfaction.</td>
</tr>
<tr>
<td>9. de Jonge, Peeters, Hamers, van Vegchel &amp; van der Linden (2003)</td>
<td>Cross sectional</td>
<td>479 health care employees (The Netherlands)</td>
<td>78%</td>
<td>Work-home interference, psychological job demands, autonomy, occupational rewards, social support,</td>
<td>Employee well-being-4 item, exhaustion, Utrecht Burnout scale, psychosomatic health complaints</td>
<td>WHI, workload and less rewards associated with emotional exhaustion</td>
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<tr>
<td>11. Eriksen, Bruusgaard &amp; Knardahl (2003)</td>
<td>Longitudinal</td>
<td>4931 nursing personnel (Norway)</td>
<td>88%</td>
<td>Workload, physical demands, control, social support, conflict, threats or violence, harassment, culture, rewards and leadership, exposure to heavy physical work, general Nordic questionnaire for psychological and social factors at work (QPSNordic). (Note all correlated with absence-univariate)</td>
<td>Sickness absence reports, basic Nordic sleep questionnaire, affective symptoms measured using the symptom check list (SCL), musculoskeletal pain and regular physical leisure activities were recorded.</td>
<td>Most important - Lack of support and encouragement in the work unit, working in psychiatric and paediatric wards, having injured neck in accident, and health complaints were associated with higher risk of sickness absence. Low sickness absence in this study was associated with non-traditional jobs (for nurses' aides) and being actively involved in aerobics or gym exercise.</td>
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<tr>
<td>12. Hanson, Maas, Meijman &amp; Godaert (2000)</td>
<td>Single occasion (ERI, Need for control). Multi occasion demand, cortisol, momentary neg. mood</td>
<td>77 health care professionals (The Netherlands)</td>
<td>Need for control, ERI.</td>
<td>Ambulatory Cortisol</td>
<td>Effort, reward, need for control did not affect levels of cortisol. Momentary negative mood (not trait negative mood) associated with cortisol.</td>
<td></td>
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<tr>
<td>13. Hanson, Godaert, Maas &amp; Meijman (2001)</td>
<td>Within day measurement</td>
<td>70 health care professionals</td>
<td>ERI, need for control (Hanson et al, 2000)</td>
<td>High frequency of heart rate</td>
<td>Need for control has negative effect on HF_HRV (lower vagal control of heart rate). Vagal control of HR for those with high ERI improves through day, possibly due to disengagement from mental demands</td>
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<tr>
<td>14. Gonge, Jensen, &amp; Bonde, (2002)</td>
<td>Longitudinal, diary, records time 2 three-day periods in subsequent 6 months</td>
<td>200 female Danish nurses providing care for elderly</td>
<td></td>
<td>Time pressure, emotional demands of clients, control and social support at baseline</td>
<td>Stress, Physical exertion and low-back pain</td>
<td>Only stress was associated with low-back pain (Odds Ratio (OR) = 2.3; Confidence Interval (CI) = 1.3 ± 3.9) while neither physical exertion nor any of the psychosocial factors were related to low-back pain. A possible pathway connecting emotional demands of clients to low-back pain through the mediation of stress was suggested.</td>
</tr>
<tr>
<td>15. Imai, Nakao, Kuroda, Tsuchiya &amp; Katoh (2004)</td>
<td>Cross sectional</td>
<td>785 nurses Comm. psych = 423 Adult/ aged = 112 Mother/ child = 102 Infect diseases = 109 Intractable dis. = 112 (Japan)</td>
<td>81%</td>
<td>Lack of job control, and overwork.</td>
<td>Pines’ burnout scale</td>
<td>Excessive work demands, particularly for emergency overtime work, and low job control contribute to burnout due to new work systems. Higher prevalence of burnout for community psychiatric nurses than public health nurses. Burnout in community psychiatric nurses reached 59%.</td>
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<tr>
<td>16. Janssen, Peeters, de Jonge, Houkes &amp; Tummers (2004)</td>
<td>Cross sectional</td>
<td>375 nurses American = 115 Dutch = 260</td>
<td>63% (Dutch) 48% (US)</td>
<td>Workload demands, emotional demands-demanding clients, resources (control, support), negative work-home interference.</td>
<td>Maslach burnout inventory, job satisfaction.</td>
<td>Association between psychological job demands (workload) and emotional exhaustion was partially mediated by negative work-home interference. Emotional demand -&gt; EE fully mediated. Job control was associated with satisfaction. Work support associated with satisfaction and lower exhaustion</td>
</tr>
<tr>
<td>17. Kivimaki, Virtanen, Vartia, Elovainio, Vahtera &amp; Keltikangas-Jarvinen (2002)</td>
<td>Longitudinal</td>
<td>5432 hospital employees (Finland)</td>
<td>81%</td>
<td>Workplace bullying and depression.</td>
<td>Workplace bullying was measured by asking respondents if they had experienced bullying, whilst cardiovascular disease and depression were measured by asking if the respondent if they had been diagnosed with either by a medical doctor.</td>
<td>Workplace bullying had a strong association with depression and cardiovascular disease.</td>
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<tr>
<td>19. Rout (2000)</td>
<td>Cross sectional</td>
<td>79 district nurses (UK)</td>
<td>65%</td>
<td>Sources of work stress eg Time pressure, administrative responsibilities, workload. Type A behaviour.</td>
<td>Job satisfaction scale, Crown-Crisp Experiential Index to measure mental well-being, job stress inventory and the ways of coping checklist.</td>
<td>Job demands, lack of communication, the work environment (no appreciation by others) and career development associated with high job dissatisfaction. No associations with mental health.</td>
</tr>
<tr>
<td>20. Sluiter, van der Beek &amp; Frings-Dresen (2003)</td>
<td>Experimental</td>
<td>20 male ambulance paramedics (The Netherlands)</td>
<td>85%</td>
<td>Fatigue, time of day and severity of patient.</td>
<td>Salivary cortisol measures taken during and after emergency calls, severity of the patient and time of day.</td>
<td>The results indicated that the neuroendocrine reaction of the paramedics and recovery were affected by the severity of the patient (direct life threatening situations) and time of day (morning hours).</td>
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<tr>
<td>22. Stacciarini &amp; Troccoli (2004)</td>
<td>Cross sectional</td>
<td>461 nurses (Brazil), Hospitals &amp; health centres = 351, programme visiting nurses = 80, uni hospital = 17, nursing depart uni. = 13</td>
<td>Not reported</td>
<td>Nursing stress inventory (NSI), constructive thinking inventory (CTI-S).</td>
<td>Occupational stress indicator (OSI), job satisfaction</td>
<td>Stressors (interpersonal relations, role related and intrinsic work factors) and global constructive thinking were associated with higher levels of psychological ill-health, physical ill-health and lower job satisfaction</td>
</tr>
<tr>
<td>Study</td>
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<td>23. Van Vegchel, de Jonge, Meijer &amp; Hamers (2001); van Vegchel, de Jonge, Bakker &amp; Schaufeli (2002)</td>
<td>Cross-sectional</td>
<td>167 ancillary health care workers (The Netherlands)</td>
<td>68%</td>
<td>Psychological, physical and emotional demands, job satisfaction and exhaustion. Overcommitment</td>
<td>Exhaustion (Utrecht burnout scale), job satisfaction, psychosomatic health complaints, physical health symptoms</td>
<td>ERI indicator (high efforts vs. low rewards) was associated with elevated risk of physical symptoms and psychosomatic health complaints, and job satisfaction (OR 5.09-18.55). High efforts and high rewards also linked to elevated risk of physical symptoms and exhaustion (OR 6.17-9.39). No moderation effect of overcommitment. The strongest effects were found when esteem was the reward indicator. Job security was also important whereas salary had least impact as reward.</td>
</tr>
<tr>
<td>24. van der Ploeg, Dorresteijn &amp; Kleber (2003)</td>
<td>Cross-sectional</td>
<td>Ambulance officers and forensic physicians</td>
<td></td>
<td>Organisational stressors (e.g. lack of job autonomy, lack of supervisor support), acute stressors</td>
<td>Emotional exhaustion, fatigue</td>
<td>Organisational stressors (such as lack of job autonomy, lack of supervisor support) were more significant predictors of emotional exhaustion and fatigue than acute stressors</td>
</tr>
</tbody>
</table>

Note—full references available in Section 2
### Attachment 3. Australian Studies of Stressors and Outcomes in HCS

<table>
<thead>
<tr>
<th>Study</th>
<th>Design</th>
<th>Participants</th>
<th>Response rate</th>
<th>Work factors</th>
<th>Outcomes</th>
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</thead>
<tbody>
<tr>
<td>1. Chrisopoulos (2002)</td>
<td>Cross sectional</td>
<td>320 Radiographers</td>
<td>41%</td>
<td>Customer-related social stressors, reciprocity</td>
<td>Maslach burnout inventory</td>
<td>Reciprocity buffered the negative effects of customer-related social stressors on depersonalisation and social support buffered the effects of customer-related social stressors on personal accomplishment. Social conflict associated with EE and DP, and time with EE. Organisational support associated with personal accomplishment, patient reciprocity associated with depersonalisation and personal accomplishment.</td>
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<td>Study</td>
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</table>
| 2. Cotton, Dollard, & de Jonge (2003); Cotton, Dollard, De Jonge Whetham, 2003 | Longitudinal, Cross sectional | 294 Clergy, 362 Clergy | 53% 69% | Demands, control, support (Karasek et al, 1990), Effort-Reward imbalance (Siegrist, 1996), emotional demands, traumatic events (Foa, 1995), unrealistic expectations, role ambiguity (Schauer, 1985), Role conflict (Kristensen, 2000), Meaning of work (Kristensen, 2000), Bullying (Zapf et al, 2001), emotion work (Zapf, et al, 1999), relocation demands, quality of supervisor | General health questionnaire (GHQ-12), physical health symptoms, burnout, job satisfaction. | Longitudinal | Low supervisor support, low control, high effort-reward imbalance, low rewards, low meaning, high role conflict, high role ambiguity, high relocation demands, traumatic events, financial concerns associated with well-being, efficacy and performance.  
**Cross-sectional.** In addition, emotional demands, bullying, emotional labour, poor leadership.  
22% Time 1 and 19% Time 2 of clergy are in the high to severe range of psychological distress. |
<table>
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<th>Study</th>
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<tr>
<td>3. Crook, Taylor, Pallant, Cameron, (2004); Taylor, Pallant, Crook &amp; Cameron (2004)</td>
<td>Cross sectional</td>
<td>323 Australasian emergency physicians</td>
<td>63%</td>
<td>Nights on call, work hours emergency, work hours total, control of hours worked, control of activity mix</td>
<td>Zung depression scale, Zung anxiety scale, physical symptoms checklist, life satisfaction</td>
<td>Control of hours worked and control of activity mix correlated with lower depression, anxiety, and physical symptoms and life satisfaction. Compared to a general population sample their psychological health was good, with less anxiety, depression and better life satisfaction. 19% showed very high stress scores.</td>
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<td>Study</td>
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<tr>
<td>5. Healy &amp; McKay (2000)</td>
<td>Cross sectional</td>
<td>129 Nurses</td>
<td>Not provided</td>
<td>Workload, inadequate staffing levels and insufficient time to complete nursing tasks. The nursing stress scale (NSS)</td>
<td>Job satisfaction scale of the nurse stress index (Harris et al, 1988), Profile of mood states (POMS-Shacham, 1983).</td>
<td>High levels of perceived nursing stress (in particular workload-insufficient time to complete tasks, inadequate staffing levels) were associated with mood disturbance and lower job satisfaction.</td>
</tr>
<tr>
<td>7. Machin, Fogarty &amp; Albion (2004)</td>
<td>Cross sectional</td>
<td>187 Rural nurses</td>
<td>80%</td>
<td>Work demands, morale, supportive leadership, work support, professional interaction.</td>
<td>Individual distress, workplace distress, individual morale, absenteeism. Uses Multivariate LISREL</td>
<td>Work demands predicted individual distress. Work support was a strong predictor of individual morale, quality of work life, and individual distress. Higher demands, lower support related to increased absenteeism, although absenteeism may increase work demands.</td>
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<td>Study</td>
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<tr>
<td>Mandy &amp; Tinley (2002)</td>
<td>Cross sectional</td>
<td>361 Podiatrists</td>
<td>44%</td>
<td>Length of time qualified, number of colleagues in work environment, nature of employment. (Work stress inventory-Powell, 2000).</td>
<td>Maslach burnout inventory (MBI).</td>
<td>Association between depersonalisation and personal accomplishment and all work stress factors (role issues, quantity/quality, responsibility/authority, social relationships, organisational issues and domestic issues. Quantity/quality associated with EE</td>
</tr>
<tr>
<td>Mayhew &amp; Chappell (2003)</td>
<td>Exploratory</td>
<td>400 public sector health workers Nurses = 200, Medical officers = 40 Allied health workers = 40 Ambulance officers = 40 Anc. staff = 80</td>
<td>99%</td>
<td>Occupational violence and psychological distress.</td>
<td>General Health Questionnaire (GHQ-12).</td>
<td>Significant relationship between exposure to occupational violence and elevated GHQ scores. Very high score disproportionately from those experienced series of violent events or had been bullied. Actual assaults not associated (possible reasons given).</td>
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<td>Study</td>
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<tr>
<td>10. Williams (2003)</td>
<td>Interview</td>
<td>29 Aboriginal health workers</td>
<td></td>
<td>Established through interview</td>
<td>A sociological use of Emotional exhaustion measures</td>
<td>High levels of emotional exhaustion associated with obligatory community labour (extra duties associated with the Aboriginal identity and practice), as well as racism, low standards of cultural sensitivity among non-Aboriginal health professionals and related workers and abuse from clients</td>
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</table>

Note: Full references available in Section 2.
Table 1: Summary of Job Stress Interventions 1990-2004 in HCS

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<thead>
<tr>
<th>Study</th>
<th>Rating</th>
<th>Intervention</th>
<th>Programmes</th>
<th>Measurement</th>
<th>Findings</th>
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<tbody>
<tr>
<td></td>
<td>First author, Target population, Sample size</td>
<td>Research Design rating</td>
<td>Level</td>
<td>Type of programme; Evaluation period</td>
<td>Control group outcome measures</td>
</tr>
<tr>
<td>1. Bagnara, Baldasseroni, Parlangeli, Taddei &amp; Tartaglia (1999); Trainee nurses; n=128</td>
<td>*****</td>
<td>I, I/O</td>
<td>OTI, CSG; 6 months.</td>
<td>No-treatment control group; Measures of psychological well-being, anxiety, self-esteem, work expectations and work involvement.</td>
<td>Psychological well-being improved significantly for the intervention group. Significantly more trainee nurses passed their exams in comparison to control group.</td>
</tr>
<tr>
<td>2. Beermann, Kuhn &amp; Kompier (1999); Hospital employees; n=230</td>
<td>***</td>
<td>I/O, O</td>
<td>PAR, COM, PEC; 6 months.</td>
<td>No control groups; Measures of work organisation, work climate, relationships, health complaints. Requested suggestions for improvement.</td>
<td>Improvements to communication and social support, and a reduction in stress levels reported six months post intervention.</td>
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<tr>
<td>3. Berg et al 1994</td>
<td>****</td>
<td>O, I/O</td>
<td>OTO, JRD, OIO</td>
<td>Swedish version of the Burnout inventory, Maslach Burnout Inventory; Strain in Nursing Care Scale; Creative Climate Questionnaire.</td>
<td>Idea support, trust, risk taking sig. higher in E group at 12 months. Changes in burnout level following intervention showed larger decrease in treatment group cf. control on all subscales but not significant. (see Mimura &amp; Griffiths, 2003)</td>
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<tr>
<td>Study</td>
<td>Rating</td>
<td>Intervention Level</td>
<td>Programmes Type of programme; Evaluation period</td>
<td>Measurement Control group outcome measures</td>
<td>Findings</td>
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<td>4. ¥Bunce &amp; West (1996); Healthcare workers; n=202.</td>
<td>****</td>
<td>I, I/ O</td>
<td>SMI combining CBT / REL; PAR; 3 months, 1 year</td>
<td>No-treatment control group; Measures of job satisfaction, motivation, health (GHQ), tension and innovation.</td>
<td>Differential impact of interventions: improvements in GHQ and satisfaction scores, and increases in innovation were experienced by PAR group.</td>
</tr>
<tr>
<td>5. ¥Cahill (1992); Social service employees; n=43.</td>
<td>***</td>
<td>I/ O, O</td>
<td>RIS, TRA; 6 months</td>
<td>No control groups; Measures of skill discretion / development, decision latitude / authority, job satisfaction, autonomy and stress.</td>
<td>Improvement in decision latitude, skill development, job satisfaction and attitude to new technology. No changes to strain levels.</td>
</tr>
<tr>
<td>6. #Carson, Cavagin, Bundark (1999); mental health nurses; n=53 (Information derived from Mimura et al (2003))</td>
<td></td>
<td>I/ O</td>
<td>CSG</td>
<td>Placebo group. Measures included the DeVillers Carson Leary Stress scale, GHQ, Maslash burnout inventory.</td>
<td>A greater stress reduction was indicated in the placebo group rather than the intervention group.</td>
</tr>
<tr>
<td>7. ¥Elliot (1991); Pharmaceutical employees; n=56</td>
<td>***</td>
<td>I, I/ O</td>
<td>CBT, CSG; 1 month</td>
<td>No control groups; Measures of daily hassles and MBTI.</td>
<td>Subjective positive evaluations from participants of the relevance/ usefulness of programme. Substantial reductions in hassles also reported.</td>
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<td>8. tEwers, Bradshaw, McGovern &amp; Ewers (2002); Forensic mental health nurses N = 33</td>
<td>*****</td>
<td>I, I/ O</td>
<td>CBT, TRA</td>
<td>Maslach Burnout inventory Evaluation of knowledge and attitudes</td>
<td>Significant improvements to the nurses knowledge and attitudes towards clients and mental health issues cf control group. Significant reduction in burnout rates in experimental and significant increase in burnout in control group.</td>
</tr>
<tr>
<td>9. ¥Freedy (1994); Nurses; n=87</td>
<td>****</td>
<td>I</td>
<td>CBT; 5 weeks, 10 weeks.</td>
<td>Delayed treatment of group; Measures of social support, mastery of destiny, emotional exhaustion, depression and conservation of resources.</td>
<td>Enhancement of resources can increase coping options and reduce distress. Low social support and mastery individuals experienced the greatest reduction in depression.</td>
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<tr>
<td>Griffiths, Randall, Santos &amp; Cox (2003)</td>
<td>***</td>
<td>I/ O, O</td>
<td>PAR COM PEC JRD TRA</td>
<td>Job satisfaction</td>
<td>Marginal decrease in feeling worn out; Improvement in job satisfaction; Low absence rates maintained; Intention to leave reduced for one group and increase for another; Musculoskeletal pain increased for both groups—interventions did not specifically target this—whether due to new computer facilities unclear. Increase in administration time was successful if staffing was not an issue however where it was an issue its success was viewed as limited. Installation of computers viewed positively if implementation completed then wornout scores reduced. Study leave and training, and communication forums both evaluated as effective, both associated with higher job satisfaction.</td>
</tr>
<tr>
<td>Senior hospital nurses (United Kingdom)</td>
<td></td>
<td>6 months following</td>
<td>Risk assessment, Interventions suggested &amp; developed by nurses. E.g. changes to staff administration time, installation of computer facilities on wards.</td>
<td>Worn out, Job satisfaction, Intention to leave, Absence, Musculo-skeletal pain</td>
<td>Evaluation of the impact of specific interventions.</td>
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<td>N = 80</td>
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<td>intervention</td>
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<tr>
<td>11. ¥Griffin (2000) Hospital employees N =540</td>
<td>***</td>
<td>I, O, O</td>
<td>CSG, TRA, COM 2 years</td>
<td>No control group: measures of organisational climate, employee morale, and distress, turnover intention and non-certified sick leave</td>
<td>Significant improvements to employee ratings of leadership, professional interaction/development, goal congruence, recognition, participation, workplace/individual morale, workload and workplace stress</td>
</tr>
<tr>
<td>12. ¥Grossman (1993) Healthcare professionals N =41</td>
<td>***</td>
<td>I/ O</td>
<td>CSG, 10-15 week session, evaluation at the end of session</td>
<td>No control groups, measuring the effectiveness of support group.</td>
<td>Although support groups experienced high drop out rates (perhaps individuals who need the most help) participants of the program reported it to alleviate stress and improve their effectiveness</td>
</tr>
<tr>
<td>13. ¥Heron (1999); Pharmaceutical employees; n=508.</td>
<td>****</td>
<td>I, I/ O</td>
<td>REL, PAR, CSG; 2-3 months.</td>
<td>No-treatment control group; Measuring GHQ, coping skills, stress management awareness and life events.</td>
<td>No-treatment group less aware of stress management and less adequate at coping.</td>
</tr>
<tr>
<td>14. ¥Hyman (1993); Long-term care facility employees; N =51</td>
<td>***</td>
<td>I</td>
<td>REL, OTI; Three 3- hour Sessions; Evaluation at session end.</td>
<td>No control groups; Measuring burnout, depersonalisation, personal accomplishment and attitude.</td>
<td>Participants reported an increase in self-esteem, improved communication, enhanced coping skills to deal with stress and an improvement in work atmosphere.</td>
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<td>Type of programme; Evaluation period</td>
<td>Control group outcome measures</td>
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<td>**15. **Kwandt (1992) Psychiatric nurses, n=31.</td>
<td>*****</td>
<td>I</td>
<td>REL, humour Intervention 3 hours</td>
<td>Psychiatric Nurses Occupational Stress Scale; Pretest, post-test, placebo</td>
<td>Differences between groups not significant. Mimura &amp; Griffiths (2003) note “methodological weakness due to small sample and large attrition. Therefore it is impossible to draw conclusions” (p.13)</td>
</tr>
<tr>
<td>**16. **Larsson (1999); Nursing staff; n=53</td>
<td>****</td>
<td>I/I/O</td>
<td>REL, CSG; 2 weeks, 6 months</td>
<td>No-treatment control group; Measuring stress symptoms, mood and daily hassles.</td>
<td>At 2 weeks stage participants reported fewer work stressors, enhanced coping strategies, and reductions in physical and emotional stress reactions. 6 month post intervention, there was no significant differences between control and treatment group.</td>
</tr>
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<td>17. t Le Blanc &amp; Schaufeli (2003)</td>
<td>****</td>
<td>I, I/ O, O</td>
<td>PAR, COM, SCG Risk analysis. 6 month intervention. Immediately and 6 months</td>
<td>Dutch version MBI (Schaufeli &amp; van Dierendonck, 2000). Comparison group</td>
<td>Staff involved in the training sessions did not exhibit an increase in burnout levels however those staff not involved did show an increase.</td>
</tr>
<tr>
<td>18. ¥Lees &amp; Ellis (1990); Nursing staff; n=53</td>
<td>***</td>
<td>I, I/ O</td>
<td>CBT, RIS, CSG, REL; Cross sectional survey.</td>
<td>No control groups; Measures of personality, assertiveness, coping and self-esteem.</td>
<td>Assertiveness positively correlated with emotional stability and self-esteem. Participative support groups nursing ensure the inclusion all staff regardless of personality.</td>
</tr>
<tr>
<td>19. #Lee &amp; Crockett (1994); nurses; n=60</td>
<td>*****</td>
<td>I</td>
<td>CBT 2 hr</td>
<td>Placebo intervention. Used the Perceived Stress Scale.</td>
<td>Findings indicated a greater decrease in stress for the treatment group as compared to the placebo group maintained over 4 weeks. “May be effective but treat with caution” (Mimura &amp; Griffith, 2003 p. 5)</td>
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<td>20. ¥Lourijsen, et al (1999); Healthcare employees; n=850.</td>
<td>****</td>
<td>I, I/O, O</td>
<td>OTI, TRA, JRD, RIS, PAR; 1-4 years.</td>
<td>No-treatment control group; Interviews with supervisors and measures of work organisation, employee health, lifestyle and absenteeism.</td>
<td>Significant reduction in absenteeism post intervention. Improvement in working conditions and psychosocial work climate also reported.</td>
</tr>
<tr>
<td>21. ¥McCue (1991); Physicians; n=64</td>
<td>****</td>
<td>I, I/O</td>
<td>CBT, REL, TMT, CSG; 1 day, 6 weeks</td>
<td>No control treatment group; Measuring burnout, stressors, stress symptoms and support skills.</td>
<td>Intervention group reported a reduction in burnout levels and stress symptoms. They also reported being more aware of work stressors and of support seeking opportunities.</td>
</tr>
<tr>
<td>22. #Melchior (1996); nurses; n=161</td>
<td>***</td>
<td>O, O/I</td>
<td>OTO, JRD, OIO 2.5 years Primary nursing</td>
<td>No-treatment control group. Maslach burnout inventory</td>
<td>There was no observed change burnout but nurses able to use primary nursing principles. Turnover decreased in E group. High drop out rate, imitation of intervention by control group “It's impossible to draw conclusions” (Mimura &amp; Griffiths, 2003, p, 7)</td>
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<td>23. ¥Michie (1992); Hospital staff; n=163</td>
<td>***</td>
<td>I</td>
<td>EAP; 6 months, 1 year.</td>
<td>No control group; Measures of anxiousness, depression, sickness absence rates, perceived functioning and satisfaction.</td>
<td>Significant improvements to anxiety, depression, work satisfaction, life satisfaction, and perceived functioning at work observed 6 months post intervention.</td>
</tr>
<tr>
<td>24. ¥Michie (1996) Hospital staff; n=92</td>
<td>***</td>
<td>I</td>
<td>EAP; 6 months</td>
<td>No control group; Measures of anxiousness, depression, sickness absence rates, perceived functioning and satisfaction.</td>
<td>Highly significant reductions in anxiety and depression and highly significant improvements in satisfaction with self.</td>
</tr>
<tr>
<td>25. ¥Mikkelsen (2000); Healthcare employees; n=135</td>
<td>*****</td>
<td>I, I/ O, O</td>
<td>EXE, OTI, PAR, COM; 1week, 1 year</td>
<td>No treatment control group; Measures of work stress, health, demands/ control, skill discretion, decision authority, social support, role harmony, learning climate and leadership.</td>
<td>Limited positive effect on work stress, job characteristics, learning climate and management style. Written reports from management, consultants and union representatives also favourable regarding usefulness of intervention.</td>
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<td>26. YMolleman (1995); Healthcare employees; n=435.</td>
<td>****</td>
<td>O</td>
<td>JRD; 6, 12 and 18 months</td>
<td>Matched control groups; Measures of perceived control, autonomy and performance. Patient perception of own involvement in process. No stress reaction measures</td>
<td>The new work design brought about a shift in actual control from head nurses to nurses. Patients in the experimental group also perceived more control over their own stay and more control of nurses over their stay compared to a control group. Doctors evaluated the performance of nurses more negatively as could not find them (due to their increased role?).</td>
</tr>
<tr>
<td>27. YPoelmans (1999); Pharmaceutical company employees; n=3,261.</td>
<td>***</td>
<td>I, I/O, O</td>
<td>TRA, PEC, OTI, OIO; 1 year.</td>
<td>No control groups; Measures of stress experiences, Psychosomatic complaints and work conditions.</td>
<td>Significant reduction in sickness absenteeism. Intervention forced stress onto the company agenda with members being made aware of issues.</td>
</tr>
<tr>
<td>28. #Proctor, Stratton-Powell, Tarrier (1998); care assistants; N = 84</td>
<td>*****</td>
<td>I, I/O</td>
<td>OTI, TRA Training in individual care planning 6 months intervention, Evaluation 6 months post</td>
<td>No-treatment control group. Used the Occupational Stress Indicator and GHQ.</td>
<td>Significant increases in GHQ in control. Significant decreases in GHQ for staff receiving training.</td>
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<td>#Razavi et al 1993 N=92 (Info derived from Mimura &amp; Griffiths, 2002)</td>
<td>***</td>
<td>I/O</td>
<td>Educational program—personnel support</td>
<td>No-treatment control Nursing Stress Scale</td>
<td>Statistically significant, although scales scores not presented “impossible to estimate the effectiveness” (Mimura &amp; Griffith, 2002, p. 5)</td>
</tr>
<tr>
<td>Reynolds (1993); Female health service employees; n=92</td>
<td>***</td>
<td>I</td>
<td>REL, CBT, TMT; 1 month, 3 months</td>
<td>No control group; Work / life satisfaction, general health, session evaluation and session impact.</td>
<td>Significant reductions in psychological distress. Session impact significantly related to life satisfaction, suggesting techniques taught on programme are transferable to non-work settings.</td>
</tr>
<tr>
<td>Robinson (1993); Emergency service, welfare and hospital employees; n=288</td>
<td>***</td>
<td>I</td>
<td>CBT; 2 weeks</td>
<td>No control group; Measuring impact of actual incident, stress symptoms and value of training.</td>
<td>Employees who reported symptoms of stress following critical incident also reported these to be reduced as a consequence of their training. The debriefing was valued more by staff who were more severely impacted.</td>
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<td>32. W.Schaufeli (1995); Community nurses; n=64.</td>
<td>***</td>
<td>I, I/ O</td>
<td>REL, CBT, RIS; 1 month.</td>
<td>No control groups; Measuring burnout, temperament (reactivity) and performance.</td>
<td>Treatment decreased and stabilised mental and physical symptoms, but had no major impact on performance. Low reactive nurses, who are able to draw upon coping resources and who in the main are resistant to stress gained more benefit from the programme.</td>
</tr>
<tr>
<td>33. W.Taormina (2000); Nurses; n=154</td>
<td>***</td>
<td>I, I/ O</td>
<td>EXE, REL, TMT. Cross-sectional survey.</td>
<td>No control group; Measures of burnout, interpersonal skills, self-management skills, psychological awareness and socialisation.</td>
<td>Results revealed high burnout rates among Hong Kong nurses. A holistic approach to prevention is deemed necessary, as individual stress management training (exercise, rest, health and personal planning) is only partially effective. Technical job training, co-worker support and future prospects were all negatively correlated with emotional exhaustion.</td>
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<td>OTO, PAR, JRD, COM, Risk analysis</td>
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<td>2 year</td>
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<td>Measurement Control group outcome measures</td>
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<td>Emotional exhaustion, job demands, control, support</td>
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<td>Found levels of job stress (emotional exhaustion) decreased during intervention period (2 yrs). Organisations usually implemented a wide variety of measures. Work-directed approaches (but not other interventions) were linked to job stress reduction, and reduction of demands, and increase of support. Benchmarking used between organisations stimulated those with high risk to use more interventions.</td>
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<tr>
<td>34. Taris, Kompier, Geurts, Scheurs, Schaufeli, de Boer, Sepmeijer &amp; Wattez (2003)</td>
<td>***</td>
<td>I, I/O, O</td>
<td>OTO, PAR, JRD, COM, Risk analysis</td>
<td>2 year</td>
<td>Found levels of job stress (emotional exhaustion) decreased during intervention period (2 yrs). Organisations usually implemented a wide variety of measures. Work-directed approaches (but not other interventions) were linked to job stress reduction, and reduction of demands, and increase of support. Benchmarking used between organisations stimulated those with high risk to use more interventions.</td>
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<td>Domiciliary care employees from 81 organizations (The Netherlands) N = 26, 563</td>
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<td>35. Taylor (1991); nurses; n=102</td>
<td>****</td>
<td>I</td>
<td>EXE; 6 weeks</td>
<td>Had treatment control group with random allocation. Measures of perceived stress scale</td>
<td>Significant difference between the control and treatment groups in stress reduction.</td>
</tr>
<tr>
<td>36. Teasdale (2000); Pharmaceutical company employees; n=452.</td>
<td>****</td>
<td>I/I/O</td>
<td>REL, OTI, CSG. Post-training assessment.</td>
<td>No-treatment control groups; Measures of well-being, coping skills, life-events and stress awareness.</td>
<td>No significant differences reported between workshops attendees and non-attendees.</td>
</tr>
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<td>37. YToivanen (1993a); Hospital cleaners; n=50.</td>
<td>*****</td>
<td>I</td>
<td>REL. 3 months, 6 months.</td>
<td>No-treatment of control group; Measures of absenteeism, EMG, depression and subjective work feelings.</td>
<td>Intervention group reported significant reductions in muscle tension levels, sleeping problems and nervousness. Absenteeism levels reduced in control and intervention groups could be attributed to a “Hawthorne” effect or self reporting.</td>
</tr>
<tr>
<td>38. YToivanen (1993b); Hospital cleaners and bank employees N=98</td>
<td>*****</td>
<td>I</td>
<td>REL. 6 months</td>
<td>No-treatment control group; Measures of cardiovascular ANS function and stress. Interviews discussing the employee's work situation were also held.</td>
<td>The relaxation method employed in this study normalised cardiac ANS functions when practiced regularly. Guided training proved to be more effective compared to individuals practicing on their own.</td>
</tr>
<tr>
<td>39. #Tsai and Crockett (1993); Nurses; n=137.</td>
<td>*****</td>
<td>I</td>
<td>REL, MED, CBT. 2 weeks, 5 weeks.</td>
<td>No-treatment control group; Measures of mental and physical well-being.</td>
<td>Treatment group reported a reduction in stress, levels and symptoms after completing training course.</td>
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<tr>
<td>Van Dierendonk, Schaufeli &amp; Buunk (1998)</td>
<td>****</td>
<td>I, I/O</td>
<td>CSG, CBT</td>
<td>Maslach burnout inventory, social support, turnover intention, absenteeism and equity</td>
<td>Experimental group reported decline in level of emotional exhaustion at Time 2. Control group indicated an increase in emotional exhaustion at Time 2. Turnover intention remained stable for experimental group however it increased for the control group.</td>
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</table>

Attachment 5. Stress Prevention, Intervention and Management Strategies in Australian Workplaces.

We used 2 strategies to inform this task.

**Strategy 1.** This involved direct communication with the jurisdictions by telephone or email from the research team (MD or NC). This strategy was informed by NOHSC (Julie Hill and Peta Miller): key contacts in the jurisdictions were provided, as well as a list of current projects. Other activities were identified through professional seminar presentations i.e. “Chronic Work Stressors: Care, Compensation & Rehabilitation”, PPL Education Services, Melbourne, 20th May, 2004.

The following projects and contacts were identified and a brief description of the projects is provided.

**Examples from the Public Sector**

**Comcare**

**Psychological injury strategy**

Comcare has projects currently being conducted in 2 government agencies (Australian Taxation Office and Centre Link).

- The Comcare prevention project is trialling a number of prevention initiatives mainly focused around (a) building supportive leadership capability and (b) enhancing work team climate through targeting support, clarity, engagement and learning processes. The model suggests that increasing individual morale (which is mainly driven by leadership and climate) buffers employees against the impact of operational stressors and enhances coping. Various forms of these programs are being trialled to determine what works best - some are training and coaching program based; some are evidence-based i.e. using Employee Opinion Survey data to target specific climate improvement programs.

- The other major focus is on early intervention programs (not post claim but proper early intervention in the traditional sense at the pre-claim stage in the workplace). Based on recent research and clinical reviews a framework is being used that suggests the majority of psychological injury claims show a gestation/development period of 6 to 12 months prior to submitting a claim. Hence Comcare are trialling a range of initiatives with managers and team leaders around (a) increasing recognition of early warning signs for common potential psychological injury and musculoskeletal profiles and (b) building ‘soft’ people skills to increase managers’ confidence and skills to proactively engage with at risk employees and steer them into appropriate support resources as early as possible. Some early data suggest there is significant mileage in this type of approach and it is extremely cost effective.

- Comcare are also looking at some injury management/clinical initiatives around influencing service providers, particularly GPs re diagnoses and using
more evidence based mental health treatments (ie the Beyond Blue style messages) - which are scarce on the ground with most comp psychological injury cases, particularly workers suffering from Major Depression.

- The other initiative Comcare are commencing is looking at is 'resilience enhancement' programs - using some clinical based interventions to try to build resilience in potential at risk employees

- At this stage it is too early to share any of the results however March 2005 case study material will be available. Consultant Dr Peter Cotton. Contact Brenda French 1300 366 979

Other activities

- Comcare has also developed a portal with information on stress and psychological injury in the workplace. The portal provides access to international and domestic research on psychological injuries, case study material, publications, and conference and seminar information.

- Information regarding stress and psychological injury can be found on the following website: www.comcare.com.au

- A series of “Better Health at Work” seminars including speakers such as Dr Nicole Higghett (BeyondBlue), Dr Bernadette Trifiletti (HAS), Dr Peter Cotton and Dr Peter Hart.

- Upcoming event is the National Rehabilitation Conference for which the theme will be “Understanding and Managing Psychological Injury”.

South Australia

1. Office of the Commission for Public Sector Employment

   Evaluation of psychologically based workers compensation claims in the public sector

   - This project explored issues associated with the management of psychological claims in the public sector with the aim of identifying and developing best practice strategies and principles relevant to the management of these claims.

   - As a result of the project, a guideline booklet for best practice injury management was development by the Injury Management Team. The recommendations of the project reinforced the importance of early intervention and the impact of this on return to work outcomes. This is now being reflected in government targets regarding early assessment and rehabilitation intervention as well as in the injury management systems, policies and procedures of agencies. Contact Trish Bowe, Injury Management Team Leader/Principal Adviser (08) 8226 2675

2. Justice Portfolio Workplace Safety Management

   Evaluation of Psychological Injuries: Government Targets

   - The SA Government released the “Workplace Safety Management in the SA Public Sector Strategy” in March 2004 which identified a number of targets to
achieve improved performance outcomes across the Public Sector in Injury Prevention and Injury Management.

- In accordance with these targets the Justice Portfolio has targeted a 20% reduction in new workplace injury claims and a 20% reduction in lost time injury frequency rates to be achieved over the next two years (2004/05 and 2005/06 financial years).

- A paper which outlines how workplace risks can be identified and key features of a best practice risk prevention model for workplace stress and possible prevention strategies has been forwarded to all agencies. Any psychological injury initiatives to be implemented will be monitored. At this point in time it can be summed up as "work in progress". Robert Fairhead, Principal Consultant Employee Relations, Justice Portfolio Services Division, Ph: 8207 1846 Fx: 8207 1834, fairhead.robert@agd.sa.gov.au

Victoria

1. Victoria Police

1. Supportive leadership program

- A pilot “Supportive Leadership” program has been run for Senior Sergeants. The program covers interpersonal issues that Senior Sergeants may confront in their workplace and how to deal with these issues effectively. During 2004 60 senior sergeants participated in a 12-day program. Currently there is an evaluation of the program underway.

- During 2005 a new program which is informed by the one day “Queensland Police supportive leadership” program will be implemented. This program is a two-day comprehensive program which covers leadership skills.

2. Mediation and conflict resolution training

- Began running this program late October 2003 in response to 23% claims in 2003-04 due to stress including those associated with conflict and bullying. The training in conflict resolution program consists of level 1 and level 2. Level 1 is a 2 day program that goes through the mediation and conflict resolution process and is also used to identify who may be suitable to undertake level 2 training. Level 2 is an additional 2 days. This program involves a feedback process to gauge the benefits of the program and where continued improvements can be made.

3. A comprehensive approach

- A comprehensive approach to stress prevention/ injury management is adopted utilising a range of resources:
  1. peer support
  2. clinical services
  3. employee support and welfare
  4. conflict resolution management
5. equity and diversity
6. organisational health branch
7. police association funded employee assistance program

- It also involves a communication strategy feedback loop for health and safety. E.g., using focus groups to determine if new information has filtered down to the front line and to determine new issues.

Contact (03) 9247 6666 Bev.munro@police.vic.gov.au

2. Victoria WorkCover

1. Return to Work / Claims Stress Project

- The overall aim of the RTW/Claims stress project is to improve RTW outcomes for workers with psychological injury claims in the public sector, focussing on the three organisations that account for around two thirds of standardised ‘stress-related’ claims within this sector – Human Services, Education and Victoria Police.

- The project was established in response to the recent strong growth in psychological injury claims and the poor continuance rates relative to other types of claims.

- The project will focus on claims of one year or less in duration, as it will run until June 2005, and any lessons learned may then be applied more broadly with other employers.

- The project team is working closely with the three employers and their authorised agents, and the aim is to align with existing initiatives and focus on identifying areas for improvement to current practice, rather than introducing an entirely new model or approach. This is based on the assumption that significant improvements can be made by ensuring that firstly, basic, key actions occur on all claims and secondly, that these actions occur in a timely, high quality manner.

- The project will be working within the existing legislative framework and changes to the legislation are not part of the project plan.

- The role of the project team will be providing support to the agents and employers and facilitating resolution of high level barriers to RTW. The project team will also offer coaching and up-skilling of agent staff and will take a coordination role in collecting and analysing performance data.

2. Stress Prevention Pilot 2004

- The Stress Prevention Pilot is a joint initiative of the Department of Human Services (DHS), Department of Education and Training (DE&T), Community and Public Sector Union (CPSU), Australian Education Union (AEU) and WorkSafe Victoria (WorkSafe). These parties agreed to support a stress prevention pilot to occur in two public sector organisations in 2004.

- The pilot is sponsored by the Senior Public Sector Occupational Health and Safety Executive Roundtable. The Roundtable consists of senior representatives from government departments, unions and WorkSafe Victoria.
The purpose of the Pilot is to determine the effectiveness of a risk management approach for reducing the negative impact of workplace stress within the organisational health context of large government organisations. The risk management approach involves employees and management working together in their natural workgroups to put in place a risk management process to prevent occupational stress. It is expected that results of the pilot will inform more effective strategies for dealing with stress factors in workplaces.

The results of the pilot will be reported to the Roundtable in March 2005.

3. VicWorkCover internal

VWA Stress Risk Management Plan

- This project relates to the primary intervention phase of a broader overall strategy to address stress risk at the VWA. Secondary and Tertiary interventions are currently operating as part of the OHS Management System.

- Primary prevention involves building and implementing a stress hazard identification, risk assessment and control process. Rather than develop and implement new hazard identification and risk assessment tools already existing data (e.g. EOS) was used to identify hazards (EOS data), risks (EOS data) and high risk areas (EOS data, sick leave data). A subproject involved an evaluation of the use of the EOP for this purpose.

- A major objective of the VWA Stress Risk Management Plan is to trial a prevention strategy for stress risk management in high risk groupings of no more than 20 staff. Agreed control plans will be implemented in 3-5 facilitated work groupings by July 2005.

4. VicHealth

Information sought

Western Australia

1. WorkSafe Western Australia

- WorkSafe WA have not started their project as yet however they are planning to use a case study approach. The focus of the study will be those employed in Education, Health and Community Services.

- The project aims to develop guidance material regarding stress.
  Contact Leona Glasby (08) 9327 8623

2. Western Australia WorkCover

1. Occupational Stress Research Program

- Recently commissioned research focused on (a) barriers and success factors experienced by each of the key stakeholders (i.e. insurers, employers, rehabilitation counsellors, claimants, legal representatives) who deal with the management of occupational stress claims, and (b) key factors that contributed
to work stress were identified and a standardised measure of these stressors in the workplace was developed.

- The WorkCover WA website has four reports resulting from this project and these are located in the Publications/Research section of the website. The four reports are:

2. Long Duration Claims Research Project

- The aim of the project is to investigate the nature of Long Duration Claims in the WA workers’ compensation system. This includes determining whether factors such as claimant demographics, type of injury, method of referral, delays in referral (to general practitioners, specialists and vocational rehabilitation providers), treatment, delays in insurers liability acceptance, surveillance and litigation contribute to the length of Long Duration Claims.
- The project involved assessing over six hundred long duration claims filed from all approved insurers. The data will be analysed in early 2004, with the final report by the end of the 2003/04 financial year.

Queensland

Queensland Division of Workplace Health & Safety

Project Commit

Contact Paul Goldsbrough. No further information.

Northern Territory

NT WorkSafe

The Blue Book

- In final development stage has wide stakeholder approval. Industries approached: Health, Education, Group Apprenticeship Schemes, New Apprenticeship Centres, various government and NGO agencies.

Project justification

- Currently, the opportunities for early intervention are being missed because of poor handling of the first or second approach by the worker to the employer. Early intervention and resolution is of critical importance.
While most agencies and organisations are proactive in development of "strategic frameworks", policy initiatives", "procedural reviews" they are often dismal in producing actual workplace tools that supervisors, team leaders and others can use in the workplace.

Who would use it?
- HR staff, team leaders, supervisors, middle management. Anyone who was the first point of contact for a distressed staff member.

What's in the Blue Book?
- Business cards for key support services (e.g. employee assistance programs, working women's centre).
- Instruction Cards- procedures for dealing with the client. (i.e. policies, listening, risk appraisal)
- A compendium of resource agencies (e.g. pregnancy help-line, men's crisis line, Drug & Alcohol counselling, SIDS).

Why use the Blue Book?
- The Blue Book is a tool. It meets the organisation's policies on dealing with clients suffering stress and sometime presenting in a distressed state. It allows frontline management to deal effectively with these clients in a professional way. It adds professionalism. It facilitates effective early intervention. Minimising deterioration into workers compensation claims and spiralling costs. It ensures that a comprehensive list of resources are available to be mapped against the client's needs. It is instantly available, next to the phone on the supervisor's desk, always ready for use.

- PETER SMITH, NT WorkSafe, Senior WorkSafe Officer,(08) 89995118, peter.smith@nt.gov.au

Examples from the Private Sector

GIO – Suncorp—Insurer of Area Health Services NSW, NSW Fire, Ambulance, DECS.
- The Professional Health Services Team has recently developed a Stress Claims Model Pilot at GIO for its case managers. The TMF Risk Management Unit is responsible for “coordinating the design and implementation of a phased risk management strategy directed at improving the identification and proactive management of organisational drivers to psychological injuries, improved claim management and post incident management of claimants” (The Professional Health Service Team, Suncorp/GIO, 2004, p. 3).
- It is based on the observation that “overwhelming evidence point[s] in the direction of Workplace issues as a strong trigger for the lodgement of Stress Claims, it follows that responsible injury management adjust its focus in that direction”. (The Professional Health Service Team, Suncorp/GIO, 2004).
- The Stress Claims Model aims to have a more balanced approach to the injury management of stress claims through its Workplace Advocacy Process. The Workplace Advocacy Process involves two phases: Phase 1 is the Simple Workplace Meeting; Phase 2 is Structured Mediation.
The Simple Workplace Meeting involves both parties and is facilitated by a mental health professional as an advocate. Features include: individual interviews with the injured worker and employer prior to meeting; collaborative approach to return to work; assumes parties want to work issues out and work together; advocacy not mediation; a safe environment to communicate and air concerns; short intervention (3.5 – 5.5 hours); advocate informs nominated treating doctor of the outcomes of the ‘simple workplace meeting’ and negotiates changes to Workcover Medical Certificate; claimant is encouraged to bring someone along for support; and brief report sent to Case Manager (1-2 pages) (The Professional Health Service Team, Suncorp/GIO, 2004, p. 8).

Structured Mediation is a more complex and complete process as it assumes that Phase 1 did not work and the parties have different agendas. The features of Structured Mediation are individual interview with the injured worker and employer; collaborative approach to return to work; assumes parties have different conflicting agendas and are not inclined to work together; mediation is a directed process where the mediator is working to a set agenda; a safe environment to communicate and air concerns; longer intervention (up to 7 hours including writing the report); mediator informs Nominated Treating Doctor of the outcomes of the ‘Structured Mediation’ and negotiates changes to Workcover Medical Certificate; claimant is encouraged to bring someone along for support and a report is sent to GIO Case Manager using the ‘Structured Mediation Report Proforma’ which has been designed specifically for this process (The Professional Health Service Team, Suncorp/GIO, 2004, pp. 8-9).

The Stress Claims Model is designed to facilitate the management of the claim in the first six to eight weeks (The Professional Health Service Team, Suncorp/GIO, 2004). Suncorp/GIO recognises that some stress claims for psychological injury will not be resolved through the use of a mental health advocacy process and will require orthodox psychological treatment (The Professional Health Service Team, Suncorp/GIO, 2004). Contact: Elizabeth Redman, Technical Advisor 02 82992421


**NSW Nurses Association**

NSWNA activities, current and over the last 2-3 years, that directly or indirectly relate to reducing stress levels for nurses include:

- community nurses violence project (joint project with WorkCover)
- workloads clause in the Award with subsequent development and implementation of a workloads measurement tool (currently in progress)
- running bullying training as part of our member education calendar
- participation in the NSW Health Department's Violence Taskforce and subsequent development of the Zero Tolerance Policy, aggression minimisation training package, review of the Security Manual, development of security design guidelines
• participation in NSW Health's review of the facility design guidelines (to ensure OHS principles are incorporated and designs are compatible with current health practices and manual handling equipment use)
• participation in the Premier's Department working party which is developing public sector policy and guidelines on bullying
• participation in the Unions NSW campaign on bullying including development of the bullying charter
• responding to member enquiries and complaints with respect to bullying, violence or other OHS issues
• running bullying and violence articles in The Lamp
• caring for nurses' mental health project (contact Angela Garvey about this one but she's currently on holidays)
• development and distribution of OHS and workers compensation guidelines for nurses

NSW Nurses' Association, PO Box 40 Camperdown NSW 1450, switch: (02) 8595 1234 (metrop), Trish Butrej, OHS Coordinator.

Strategy 2: Along the lines of the Beacon’s study we sought examples of effective organisational stress management strategies (best practice models of prevention, early intervention, and management of stress and psychological injury in the workplace). An advertisement (see below) calling for examples of best practice. The advertisement was placed on websites (The Aged and Community Services Assoc (ACSA)) and newsletters (the Aust Nursing Home and Extended Care Assoc (ANHECA)), on the NSW Health Employee Relations intranet site, in the NSW Nurses' Association publication The Lamp, and on the NOHSC website.

Managing Stress Well?

We are Seeking Examples of Effective Organisational Stress Management

Does your organisation have successful strategies for addressing job stress or managing psychological injury? Do you know of organisations or providers that are exemplars?

Please contact us!

WorkCover NSW and the University of South Australia are researching best practice models of prevention, early intervention, and management of stress and psychological injury in the workplace.

If you believe that your organisation can demonstrate good working practices or you know of one that does, please contact Assoc Prof Maureen Dollard at:

Work & Stress Research Group
Tel: 08-8302 2277
E-mail: Maureen.dollard@unisa.edu.au
• The advertisement triggered a number of telephone and email responses. These were a mix from representatives of workplaces reporting on initiatives to private consultants informing of their activities, as well as ‘what not to do’ examples.

• Some examples of interventions being tried in organisations were tertiary intervention approaches (e.g. health days Mid North Coast Area Health Service Port Macquarie Campus) as well as an HSE pilot project in some schools (primary prevention).

• One respondent pointed out that organisations may not respond to the call because interventions may be implemented as part of an Organisational Health or Organisational Development program (e.g. Coffs Harbour City Council) such that reduction of stress is not an explicit aim yet could be reduced as a result of the intervention. Similarly project such as that of the NSW Nurses Association to better resource nurses in high risk violent situations, would likely reduce the psychological distress known to be associated with the threat or/actual violence (Mayhew & Chappell, 2003). In sum, there was no organisation that would identify itself as a model of best practice. Rather organisations generally identified specific strategies rather than comprehensive approaches.

**Mid North Coast Area Health Service Port Macquarie Campus**

**“Staff Health Days”**

• Held 3 staff health days during May and June 2004 where staff were encouraged to attend one or more of the health and well-being activities.

• Activities included: massage; reflexology; relaxation sessions; tai chi; yoga; blood pressure; spirometry; pedometer project; urine testing; blood sugar level; and smoking cessation support.

• The project was well supported by staff and feedback indicated interest in various activities being provided on a continuing basis.

• Evaluation of the program involved participants being surveyed for each activity that they were involved in. The feedback was then given to those that provided the activity. Further to this a questionnaire relating to on-going involvement of healthy lifestyle choices was then followed up via phone call after 3 months and once again after 6 months.

• An annual staff health program plan will be developed, implemented and evaluated.

**McMaugh Gardens Aged Care Centre**

• Utilises an external counselling service which is available to all staff for personal and work related problems.

• Have offered this service for the last 2 years and has been working well
Coffs Harbour City Council

- Coffs Harbour City Council are implementing a range of initiatives which will improve factors that impact on stress in the workplace as part of our OD program although stress prevention is not the focus of these. A research project on stress prevention and management testing a range of identification, measurement and intervention strategies is planned in 2005. Terry Bernutt, Occupational Health and Safety Coordinator, Coffs Harbour City Council, Phone: (02)66484253

Ray Murphy OHSW Consultant

- Currently piloting the HSE Stress Pilot Project in a number of schools
- Survey is being administered online
- The survey is not intended to be the focus of the intervention but as a means of initiating a structured preventative approach to the management of work related stress.

Deacons (Legal)

- In conjunction with AON consulting, Professor John Tiller (Professor of Psychiatry, University of Melbourne) Deacons are designing a guide to occupational stress risk management program with national application. Its completion is due March 2005. Core elements include meeting with an employer, conducting an organisational review, analysing the review results, workshopping key issues of the results and recommendations as to the program design, recommended program structure and implementation, data collection and benchmarking. Further a due diligence process is conducted focusing on workers’ compensation, occupational health and safety, and workplace relations consultation with an employer (the legal perspective). Contact Bryan Gurry, 03 86866305.
Appendix 2:

Outcomes of the Stakeholder Workshop

A Future Inquiry workshop was conducted for stakeholders in February 2005 using the method outlined in the body of this report (see Chapter 2, Method).

This workshop was designed to get stakeholder input to the workplace stress intervention model that is an outcome of this research. Representatives of a wide variety of stakeholder groups were invited to attend and contribute their ideas and observations. Stakeholder groups included: unions, employer representatives, health and safety representatives, workers and managers, treatment providers, OHS coordinators and consultants, rehabilitation coordinators and consultants, the OHS regulator, and the workers’ compensation regulator.

The workshop commenced with an introduction and overview of the literature on stress and psychological injury in the HCS sector; in particular this covered the importance of primary intervention and the need for feedback from secondary and tertiary activities to primary intervention.

Introduction to workshop

Aims of the workshop:

- To determine your (stakeholder) needs
- To consider the evidence
- To look at:
  - Principles
  - Context
  - Choice of intervention
  - Supports and barriers

Negative work organisation factors => adverse health outcomes

Stress intervention can prevent or control work-related stress

Addressing negative work organisation factors can improve worker health and organisational outcomes
**What works now?**

In the first session participants worked in mixed groups, reflected on their own organisations and identified the key features of stress interventions that they know work now (such as actions of particular people, changes in the workplace that have made a difference...). Participants were asked to identify ‘what works now?’:

1. Key features
2. What do we do well?

They were asked to identify concrete features or actions. In all sessions, participants were asked to self-manage their groups, to appoint a timekeeper, recorder, presenter and someone to hold the discussion on track.

<table>
<thead>
<tr>
<th>Grp</th>
<th>Responses</th>
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<tbody>
<tr>
<td>1</td>
<td>Clinical psychologist assess psychological component of physical injury (survey (work environment scale (MOOS)) – HR/union involvement)</td>
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<td></td>
<td>Management recommendations based on survey – implemented some aspects – re-surveyed year later – reduction of impact in “hot spot”.</td>
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<td>Employee opinion survey</td>
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<td>Autonomy/ Respect/ Flexible work practices – the key</td>
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<td></td>
<td>Care givers going into homes:</td>
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<td></td>
<td>24-hr access to MD (sole workers) strategies:</td>
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<td></td>
<td>⬤ Employer staff to walk away</td>
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<td></td>
<td>⬤ Access supervisor during day (meet in field)</td>
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<td></td>
<td>Office:</td>
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<td></td>
<td>⬤ Flexible time keeping to self manage time off</td>
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<td></td>
<td>⬤ Weekly meetings</td>
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<td></td>
<td>EAP – extremely useful</td>
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<td></td>
<td>Trial phone supervision for sole workers (to access sup of choice)</td>
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<td></td>
<td>⬤ Seeking funding for pilot (co-ordinators been burning out)</td>
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<tr>
<td></td>
<td>Set boundaries for clients – cut off service if breach of agreements (to protect workers)</td>
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<td>Childcare workers</td>
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<td></td>
<td>⬤ Work more with families</td>
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<td></td>
<td>⬤ HR specialists recruited to provide 1 on 1 performance management assistance &amp; HR (seen huge benefit) – upskills managers</td>
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<td></td>
<td>EAP</td>
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<td></td>
<td>⬤ Relaunched and revamped – reminded staff of its value</td>
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<td></td>
<td>⬤ Fresh eyes but still be mindful of organisational culture</td>
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<td></td>
<td>⬤ Management training and support</td>
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<td>Grp</td>
<td>Responses</td>
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<td>Choice of support person</td>
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<td>Early psych intervention</td>
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<td>Performance management— manager skill</td>
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<td>Early identification</td>
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<td>Boundary identification</td>
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<td>Management commitment</td>
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<td>Ownership throughout organisation</td>
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<td>Consultation— multi strategies— self/ group/ team building</td>
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<td>Engagement</td>
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<td>Code of Conduct/ Policy re bullying and harassment</td>
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<td>Identify good quality information re circumstances</td>
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<td>Identification of stressor</td>
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<td>G Good recruitment process</td>
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<td>Ind Industrial Consultation - measuring workloads</td>
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<td>benchmarking outputs</td>
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<td>adjusting workloads</td>
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<td>reasonable workloads hours/ patients/ tasks</td>
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<td>tools developed for areas/ workloads</td>
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<td></td>
<td>Training programs- improving communication, work skills</td>
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<td></td>
<td>service delivery - violence, learning skills to report</td>
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<td></td>
<td>define boundaries – system approach</td>
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<td>change management</td>
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<td>Employee Assistance Program for staff</td>
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<td>Mediation with staff</td>
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<td>Taking leave</td>
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<td>Succession planning</td>
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<td>External resources for service delivery</td>
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<td>Strong Union Representation</td>
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<td>Communication</td>
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<td>Policies</td>
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<td>Stress management strategies</td>
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<td>Risk audit</td>
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<td>Interviews of staff</td>
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<td>Consultation of staff</td>
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<td>Feeling of staff/ staff leaving</td>
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<td>Checking references + recruitment</td>
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<td>Communication and empathy (around org change)</td>
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<td>Identification and assessment of potential problems</td>
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<td>Better manager skills (training provided)</td>
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<td>Organisational climate (strategies to measure and improve)</td>
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<td></td>
<td>Confidentiality (involvement of employee)</td>
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<td>Stress release/ reduction (creative opportunities to build teams, have time out)</td>
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<td></td>
<td>Reaffirmation of shared values</td>
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<td>Effective and available EAP services (utilize feedback for orgn strategies)</td>
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<td></td>
<td>Early contact and care</td>
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<tr>
<td></td>
<td>The ‘right’ response to each issue (policies and procedure to support)</td>
</tr>
</tbody>
</table>
Grp | Responses
---|---
4 | § Enforce zero tolerance of bullying
   |   o Education at all levels
   |   o Incident reporting (bullying, violence, workload etc)
§ Staff counsellors as well as EAP
§ Reasonable workload clause
   |   o Committee
§ Early intervention by management and support systems
§ Coordination/ flexibility
§ Flexible working arrangements
§ Flexible injury management approaches
§ Outside provider for stress claims
§ Coaching of managers of the issues around stress
§ Education of managers of responsibilities under EAP
§ Good formal supervision by management
5 | Performance management system (DOCS)
§ Relationship development g communication
Professional Supervision Case Workers
§ Debriefing, reflective practices
Training managers to be managers
§ Positive— not as “punishment”
§ Development program
   |   o Transition
   |   o Middle
   |   o Leadership
Referral system for health workers
§ Policies and procedures supported by management and work within context
   |   eg referral information
§ Communication essential
§ Controlled environments
§ Dignity respect charter
6 | PREVENT
§ Commitment
§ Resources
§ $$$
§ Training (bullying)
§ EAP
FLEXIBLE
§ Work practices
   |   Eg self-rostering
LINE MANAGEMENT
§ Is supportive
COMMUNICATION
§ Style
   |   Impartial
   |   Focused
   |   Expertise
<table>
<thead>
<tr>
<th>Grp</th>
<th>Responses</th>
</tr>
</thead>
</table>
| 7   | - Open door management approach + competence (confidence, credibility)  
- Mentor/buddy models  
- Clear work practices—roles/responsibilities/decision making/points of escalation (without over-bureaucratizing)  
- Informal + formal mgt of grievances  
- Promotion of positive work environment—care for staff as well as clients  
- Positive performance appraisal  
- EAP (secondary level) + primary (room to improve)  
- Managers who think and respond to individual circumstances  
- Planning around people’s fragilities  
- Honest recruitment to fit individuals to job requirements  
- Climate surveys to identify issues  
- Staying in touch with staff eg office goss, regular meetings |
| 8   | - Zero tolerance to stress  
- Legislation – framework  
- Acknowledgement of stress – as a serious issue  
- Dealing with OHS principles  
- Code of Conduct principles  
- Recognition of staff limits  
- Policy on safe working environment  
- Knowing H Resource principles of individual organisation (who + what to access)  
- Senior Management  
- Commitment and support  
- Reflect objectives of policy  
- Skills to deal with policy  
- Consultation with employees/union/mixed levels/staff with organisation  
- Awareness of consultation  
- Definition of consultation  
- Better recruitment strategies/policies  
- Independent review of policy/principles |
The Ideal Future—2015

In this session participants worked in stakeholder groups and imagined an ideal future where an ideal model for job stress intervention has been implemented and shown to work. The groups were asked to use concrete terms and examples to identify what the ideal, future model delivers and how it works. They were asked to answer three questions:

1. What has our ideal model delivered?
2. What has it done that we didn’t have?
3. Give concrete ideas

<table>
<thead>
<tr>
<th>Rehab reps</th>
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</thead>
<tbody>
<tr>
<td>1. Well informed workplace re management of workplace stress + commitment to prevention</td>
</tr>
<tr>
<td>2. Improved workplace culture</td>
</tr>
<tr>
<td>3. Solid + effective policies/procedures which are adhered to</td>
</tr>
<tr>
<td>4. Resources for training + supporting staff (inc EAP systems/services)</td>
</tr>
<tr>
<td>5. Responsibility for personal health/lives coping mechanisms</td>
</tr>
<tr>
<td>6. Recruitment/orientation/training are optimised</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Employee group A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Claims need to be more streamlined</td>
</tr>
<tr>
<td>o Not using medical professionals to bully and influence negatively on claims</td>
</tr>
<tr>
<td>WorkCover to have more power and effectively used and monitored</td>
</tr>
<tr>
<td>There should be no debilitating stress</td>
</tr>
<tr>
<td>Workplace culture to educate on ‘what is stress’ and how to make a claim</td>
</tr>
<tr>
<td>o Supporting workers that it’s ok to report your stress = ‘no shame if you claim’</td>
</tr>
<tr>
<td>o That it is ok to feel stress in the areas we work – ie direct care workers</td>
</tr>
<tr>
<td>Retained skill workers in the sector that would of otherwise ‘burnout’</td>
</tr>
<tr>
<td>More/ better skilled caseworkers/managers in insurance companies</td>
</tr>
<tr>
<td>More skilled Human Resource workers</td>
</tr>
<tr>
<td>Better timeframes for grievance procedures and protected disclosures ie common interest disclosures.</td>
</tr>
<tr>
<td>Better policing and repercussions of anyone retaliating against those who disclose.</td>
</tr>
<tr>
<td>Reasonable work loads</td>
</tr>
<tr>
<td>Adequate resources to complete tasks</td>
</tr>
<tr>
<td>Reasonable work hours</td>
</tr>
<tr>
<td>Greater awareness of post traumatic stress syndrome and early intervention</td>
</tr>
<tr>
<td>Young workers receive education/training in stress management</td>
</tr>
<tr>
<td>Increase in management skills to manage workplace staff better</td>
</tr>
<tr>
<td>More management staff to do this</td>
</tr>
<tr>
<td>Better rehab service, ie for workers no limiting criteria for WorkCover</td>
</tr>
<tr>
<td>100% of workers provided with formal/regular supervision</td>
</tr>
<tr>
<td>More streamlined reporting for funding</td>
</tr>
<tr>
<td>Better protection for “whistleblowers”</td>
</tr>
<tr>
<td>Better evaluation through all lines of management and workers</td>
</tr>
<tr>
<td>‘No blame’ mentality with stress claims</td>
</tr>
<tr>
<td>Employee group B</td>
</tr>
<tr>
<td>------------------------------------------------------</td>
</tr>
<tr>
<td>» Change in workplace culture</td>
</tr>
<tr>
<td>o Policies, procedures, implementation, evaluation</td>
</tr>
<tr>
<td>o Lost of training, support for line managers and staff</td>
</tr>
<tr>
<td>» Minimum level of stress injuries</td>
</tr>
<tr>
<td>§ Supportive senior management</td>
</tr>
<tr>
<td>§ Encouragement on reporting</td>
</tr>
<tr>
<td>§ Reasonable workloads</td>
</tr>
<tr>
<td>§ Reduced levels of violence (including bullying etc)</td>
</tr>
<tr>
<td>§ “Right people in the right jobs”</td>
</tr>
<tr>
<td>§ Good resourcing</td>
</tr>
<tr>
<td>§ Flexibility— whole organisation</td>
</tr>
<tr>
<td>§ Focus on client compatibilities etc</td>
</tr>
<tr>
<td>§ No blind acceptance of risk— “never do nothing”</td>
</tr>
<tr>
<td>§ Transparent communication</td>
</tr>
<tr>
<td>§ Excellent consultation (inclusion of unions)</td>
</tr>
<tr>
<td>§ Safe working environment and equipment</td>
</tr>
<tr>
<td>§ Recognition/ valuing of employees</td>
</tr>
<tr>
<td>§ Increase pay, increase annual leave, shorter shifts</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OHS A</th>
</tr>
</thead>
<tbody>
<tr>
<td>» Employees valued — How:</td>
</tr>
<tr>
<td>§ Multi-strategies of consultation</td>
</tr>
<tr>
<td>§ Support</td>
</tr>
<tr>
<td>§ Feedback — including positive</td>
</tr>
<tr>
<td>» Improved management g improved people skills. How:</td>
</tr>
<tr>
<td>§ Better recruitment practices</td>
</tr>
<tr>
<td>§ Open</td>
</tr>
<tr>
<td>§ Clear expectations/ performance/ accountability</td>
</tr>
<tr>
<td>§ Good clear orientation/ mentoring</td>
</tr>
<tr>
<td>» Training and professional development systems</td>
</tr>
<tr>
<td>» Reduced ‘polarised’ conflict mg in organisation. How:</td>
</tr>
<tr>
<td>§ Team building/ staff consultation/ mediation systems</td>
</tr>
<tr>
<td>§ Formal multi-strategy consultation systems for all changes + policy</td>
</tr>
<tr>
<td>development g advocates/ committees/ reps/ cultural leaders/ staff</td>
</tr>
<tr>
<td>appraisal/ mentors</td>
</tr>
<tr>
<td>§ Identification of ‘triggers’</td>
</tr>
<tr>
<td>§ Proactive, organisation planning g intro of policies/ work practices</td>
</tr>
<tr>
<td>§ Change management processes</td>
</tr>
<tr>
<td>§ After incident/ situation, good quality information reporting systems</td>
</tr>
<tr>
<td>feeding back into other organisation systems eg clinical/ HR</td>
</tr>
</tbody>
</table>

Mgt commitment. How:
|   § Training                                          |
|   § Senior accountability to systems g performance agreement |
|   § Performance mgt g their conduct reflects company’s code of conduct and ethics |
| » Flexible package                                   |
|   § Tailored to individual/ issues multi-strategies   |
| » Acknowledgement of ‘rurality’ issues                |
|   § Cultures                                          |
|   § Access to resources                               |
| » NOT medical model— industrial model                 |

**YES** — organisational model with ownership by all levels of workers
<table>
<thead>
<tr>
<th><strong>OHS B</strong></th>
<th>Broader management understanding and responsibility, therefore cultural change across organisation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Improved succession planning</td>
</tr>
<tr>
<td></td>
<td>- Management skills</td>
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<tr>
<td></td>
<td>- Staff awareness</td>
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<tr>
<td></td>
<td>Pro-active systematic approach</td>
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<td></td>
<td>Internal learning and development in organizations</td>
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<td></td>
<td>Managers— coaching, mentoring</td>
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<tr>
<td></td>
<td>Dynamic communication and consultation</td>
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<td></td>
<td>Consistent corporate philosophy</td>
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<table>
<thead>
<tr>
<th><strong>Managers A</strong></th>
<th>Better framework to assess stress</th>
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<tbody>
<tr>
<td></td>
<td>Codes of practice</td>
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<tr>
<td></td>
<td>Support and training</td>
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<tr>
<td></td>
<td>Job Descriptions</td>
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<tr>
<td></td>
<td>Performance management</td>
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<tr>
<td></td>
<td>Clear policies— training— organisational support</td>
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<td></td>
<td>Accountability of policies</td>
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<tr>
<td></td>
<td>Human resource management</td>
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<tr>
<td></td>
<td>Consultation with staff, representation</td>
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<tr>
<td></td>
<td>Clear description/ direction for staff— EAP Programs</td>
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<tr>
<td></td>
<td>Operation of systems</td>
</tr>
<tr>
<td></td>
<td>Recruitment of staff</td>
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<td></td>
<td>Incentive for staff— fair pay— workloads</td>
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<tr>
<td></td>
<td>Definition of stress</td>
</tr>
<tr>
<td></td>
<td>- How much is work-related</td>
</tr>
<tr>
<td></td>
<td>- Take external factors into claims (family pressures)</td>
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<td></td>
<td>Better communication - better guidelines — between insurance agencies and employer, GP etc</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Managers B</strong></th>
<th>Significantly reduced premiums g zero claims</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Well resourced organisational + support</td>
</tr>
<tr>
<td></td>
<td>Well managed organisational</td>
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<tr>
<td></td>
<td>- Mgrs trained/ aware</td>
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<tr>
<td></td>
<td>- Updated skills</td>
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<td></td>
<td>- Staff informed, consulted, aware, supported</td>
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<td></td>
<td>EAP effective + range of services</td>
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<td></td>
<td>Work not equal to stress (the aim)</td>
</tr>
<tr>
<td></td>
<td>Change in attitude to what stress is</td>
</tr>
<tr>
<td></td>
<td>Change is constant/ expected</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Service A</strong></th>
<th>Dramatic decrease in stress-related claims/ decrease in physical injury claims</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work satisfaction - motivation increase/ increase productivity/ increase customer satisfaction/ increase better service outcomes</td>
</tr>
<tr>
<td></td>
<td>Early intervention</td>
</tr>
<tr>
<td></td>
<td>Ongoing monitoring/ staff surveys</td>
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<td></td>
<td>Data collection— incident/ claims</td>
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<td></td>
<td>Identification of precursors</td>
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<td></td>
<td>Staff retention increase</td>
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<td></td>
<td>Good work-life balance/ flexible work practices</td>
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<tr>
<td></td>
<td>Enhance control of work environment</td>
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<tr>
<td></td>
<td>Mutual respect/ cooperation between management an staff</td>
</tr>
<tr>
<td></td>
<td>Clear communication</td>
</tr>
<tr>
<td></td>
<td>Policy and procedures document/ accountabilities/ not coercive</td>
</tr>
<tr>
<td></td>
<td>Positive organisational culture</td>
</tr>
<tr>
<td></td>
<td>Shared O HS/ HR role in stress management</td>
</tr>
<tr>
<td></td>
<td>BRAVE NEW WORLD !!!</td>
</tr>
</tbody>
</table>
Program B

- Better tools to identify all the facets that make up ‘stress’
- ‘Stress’ taken out of ‘compensable’ injury and better treated under a ‘national Injury Management’ system to be more community oriented
  - Use “trial” or “test case”
- Employer risk management plan needs to encourage good practice as well as consultation between employer and doctor
- Everyone taking responsibility and control for the situation
- Acceptance of the legitimacy of the notion of workplace ‘stress’. The cultural change has facilitated this to happen.
- Very skilled managers/supervisors in dealing with employees—know their business very well!
- Honest referrals to service providers. Explicit statements for reason of referral. No attempt to blame victim (inappropriate). No adversarial approach.
- Very good ‘open’ communication, consultation practice, informal flow.
- More coordination between primary/secondary/tertiary strategies
- Better integration—looping of info flow between strategies
- Accurate/realistic identification of what the ‘stress’ is/stressors are
  - Coming from the workplace as well as the treating doctor

**Principles**

In this session participants worked in mixed groups to determine the principles that agreed should underpin the model. For example, principles that we would offer include: It’s about prevention, and it’s about systems that treat people with dignity and respect. The groups considered these principles and identified others, then discussed the processes that put these principles into practice, that is, how they are operationalised.

Participants were asked to identify:

1. What are the key principles for our model?

And to think about:

1. Common features from this morning’s work
1. Important values
1. Critical processes
### Model - Primary: To encompass:
- ID of issues (organisational and individual)
- Not medically/industrially (non-adversarial)
- Framework not prescriptive model
- Pre-emptive mgt strategies
- Event mgt
- Bail out strategies - external (consultants)

### Principles:
- Consultation and communication
- Values-fit— flexible— increasing capacity/ capability

1. **Senior management commitment and employee engagement**
   - Change happens— need access (ie to resources)
   - Features - driven by workplaces/ employees
     - Adaptable to organisations

2. **Management systems**
   - Recruitment
   - Performance development/ management
   - Training/ time - EAP - workplace and non-workplace
   - Consultation processes
   - Position description

   - Early identification/ intervention
   - CBA claims v. implementing [?]  

3. **Resources/ mechanisms**
   - Cultural change g employer of choice
   - Job design and workload - organisational resourcing $ 

### PREVENTATIVE
1. Corporate level training
2. Local level training
3. Counselling support services
4. Consistency in job descriptions, policies and procedures, performance mgmt
5. **Recruitment/ selection process integrates a shared common value**
6. Corporate support for resources

### REACTIVE
1. Mgt of injuries g acknowledge presence
2. Use risk management tools/ processes
3. **effective/ active listening communication/ consultation**
4. **ownership of own behaviour**

### 1. CULTURE CHANGE
- From top down
- Validation of psychological injury
- Education and training to change attitudes

### 2. PREVENTION FOCUS
- Improved recruitment and training of managers
- Mediation

### 3. MORE EFFECTIVE PARTNERSHIPS WITH STAKEHOLDERS
1. What is workplace stress? Definitions
   - Prevention - early identification/ intervention
2. Systematic approach
   - Flexibility - work practices
   - Supportive environment and communications/ training
   - Choices/ options built into the system in place to identify psych stress
   - Organisational resources devoted to stress mgt
3. Respect - all levels (equity and diversity)
Clear aims and objectives (industry specific)
Address 3 levels primary/secondary/tertiary
*Expected behaviours; clear definition of responsibility/accountability of all parties.
*Integration into organisational culture and management systems induction and training/monitoring
Promoted re positive outcomes
Community promotion
Identification, consultation, collaboration
Dignity and respect for everyone in workplace (aware of differences)
*Identify, assess, control environmental hazards
**NGOs**

**Resources** Can do better
- Strategic planning
- Adequate physical environment
- Reduce culture of blame
- Recognition of the value and contribution of small orgs; lobbying. Better advocacy
- Less competition b/t NGOs
- Security of funding g employment security
- Recognition
- HR strategies, policies etc
- Shifting culture from issue raising to solution focussed approach
- Adequate mgt development
- **Better support for staff and mgt including training** Can do better
  - Empowerment to collaborate as a sector
  - Adequate supervision
  - Reduce competition for like services
  - Empowerment of staff
  - Better communication b/t staff and mgt
  - Better structures/ systems
  - Conflicting and confusing legislative requirements.

**These we do well:**
- Informal staff recognition eg stress day, cake day, chair massages
- Flexible/ family friendly work practices
- Team support
- More innovative in terms of strategies implemented
- More humanistic approach to work. Closer to org’s values
- Respectful environment
- Flatter structures – less mgt layers
- Diversity

**PRINCIPLES**

1. Acknowledgement that stress is an important issue – impacts on individuals and organisation
   - Acknowledgement by managers of stress - is a valid issue
2. Stress Management Framework
   - Guidelines, policies
   - Independent review
   - Report card – benchmarking
3. Human Resources
   - Recruitment
   - Adequate resources

- Recognise multi-fact of human being - psych, physical, emotional, work, personal and social environment
- Move out of compensation
- De-medicalise job stress
- Pragmatic and flexible framework
- Expect personal responsibility (employer and employee) and foster resilience
- Community to make it safe to say “I am feeling distressed by…” and organisation assists to do something about it.
Key Principles:

- **Collaboration and mutual respect**
- Skills are important (HR management, communication, conflict resolution etc)
- Strategic skills, planning skills
- A responsive environment
- Each individual (management—first-line workers) takes some responsibility in identifying and managing workplace stress
- A right to speak up about stress
- Risk assessment/management process also applies to psychosocial health issues in the workplace
- The worker has the right not to be injured in the course of work
- Employers have the responsibility to minimise “stress” risk for their employees
- Collaboration, responsibility, rights

An environment scan: The Mind Map

The whole group came together to contribute to a wall-sized mind map drawing together the key features of the context for the model’s application. The focus of the mind map was:

Implementing job stress interventions in the health and community services industry—what are the trends and influences that impact on this?

1. Recognition and acknowledgement that there’s a problem
2. Denial
3. Concern that [attention] will make it a problem
   - Resistance to talking about it because it will make the problem happen
   - Not if given a solution
4. Lack of accurate stats
   - Size of the problem?
   - Link to research
   - Benchmarking
   - High attrition rates—qualitative data, exit interviews
5. Movement in job design for doctors and nurses—eg National/State reasonable hours committee
6. Govt competitive policies -> stressed organisations
   - Leads to stressed individuals
   - Under-resourcing makes it hard to manage this issue
7. Some workplaces providing good supervision, contact support
8. Taking responsibility
   - Individuals
   - Organisation
   - Small organisations—hamstrung by Government funding and no political will to pay for this
9. Whistle-blowing as source of stress
   - If not anonymous and whistle blower expects reprisal
10. Legislative acceptance of stress/psych injury
    - Lack of Regulation/Codes of Practice/Industry Standard to provide guidance
    - For organisations, also doctors and other stakeholders
WorkCover guidelines exist
- Use powers to hold those accountable
- Don’t link funding to return to work and Rehab providers
  - inform Rehab providers about PTSD
  - Seeking culpability— “bunkering down”
  - Protection for discrimination not working
  - Protection of employment in law not perceived as working
  - Protective Disclosure Act doesn’t work
  - Legal recognition of bullying and harassment
  - Employer bodies deny existence [of workplace stress]
  - Growth in legal recognition of these issues

Current structure of injury mgrs— case mgt practices
- Inconsistent intervention on warning signs
- Vested interest
  - Groups bunkering down
    - Damage control
  - Political alliances
  - Interdependence
  - Eg Labor Party and Unions impact is neg on Public Servant if Unions don’t make employee accountable

Involving all of the stakeholders needs to be better
- WC Commission, Unions, Insurers, Employers, Employees, Drs, Rehab Providers, Legal = solicitors
  - Fear of being blamed
- Lots of existing informal networks already operating
  - Eg rural nurses

Empowerment of mgrs and staff to make decisions to reduce stress
- Level of compliance increasing
  - Conflicting
  - Organisational and individual effects
  - Inertia— reluctance to change
    - Attitudes
- Focus is on stress (outcomes) not causes
- Community awareness— whole area of mental health
  - Demanding population expects high level of service
  - Prejudices— media role
    - Reality shows on TV
      - Negative portrayal of industry workers
  - Rural communities — > resourcing
  - Bullying and harassment now recognised
  - National awareness of depression — nation-wide [NDI]
    - NO HSC— mental health a national priority
      - Effect of move to ACC?

Change — > need for resourcing ($) for cultural change
  - Don’t recognise how rapidly change is happening
Work-relatedness aspect of claims (“significant contributing factor”)
  - Vague— defining boundaries— roles, hours of work, etc
  - Blame, individual focus
    - Need to keep out of WC areas— non-adversarial
      - Provisional liability exists but still W/ C
  - Perception that stress is a problem with the individuals
    - Medicalising it
    - Gets linked to incompetence
    - People’s preparedness— training and support, own coping skills
    - Individual differences— is the workplace capable of intervening?
How robust/resilient is the individual?
- Abuse isn’t about resilience— psych injury is the result of normal reaction to an abnormal situation
- Let’s not support the ‘myth’ that targets of abuse are to blame

Problems from outside workplace coming to work
- Name is a problem— “girlie”
  - Impact of language— medical model
  - Can recover— not terminal; use positive language
- Need to understand how organisational issues can be manifest as individual claims
- Lack of skills; incompetence in delivering model
  - Skills/ lack of
  - Competency-based training provision
- Shift to the Right politically— individual vs collective responsibility
  - Moral compass
- Resources
  - Funding cycles, political cycles
- Stronger union representation
  - Mediating at workplace
  - Dealing with IR instead of WC
  - Unions doing lots in raising awareness
    - Collective bargaining to resolve issues— decrease stress in workplace
- Current research on bullying, violence etc— Oz, International
  - Why increases in public administration?
- Need to challenge traditions in industry
  - Registration requirements— Impairment Board
    - Effects on competence
  - Perceptions of risk
  - Action can be taken to ameliorate
- EAPs becoming more modernised
  - Appointments limited
- Cultural variations exist

Choosing the options: making a difference

In enterprise-specific workgroups (or groups of similar workplaces) participants developed criteria for choosing primary, secondary and tertiary intervention options, with a focus on directing activity at the primary level. They considered the question: On the basis of what’s been discussed, what could you do in your organizations that would make a difference? They then considered how this fitted with current practice.

Participants were asked to consider:
- What should we stop doing?
- What should we start?
- What should we do differently?

In order to move from a focus on secondary and tertiary intervention to primary intervention
<table>
<thead>
<tr>
<th>Start:</th>
<th>Do different:</th>
</tr>
</thead>
<tbody>
<tr>
<td>β Acknowledge challenges</td>
<td>β Build OHS more effectively into procurement</td>
</tr>
<tr>
<td>β Continue to build on OHS/ Injury management Improvements</td>
<td>β De-medicalise job stress</td>
</tr>
<tr>
<td>β Assigning top management/ CEO’s attention to W/ Comp</td>
<td>β Build OHS into different accreditation standards (eg Aged Care)</td>
</tr>
<tr>
<td>β Personalise induction – introduce new workers</td>
<td>β Provide OHS tools and leadership to other Government Departments/ Service Agencies</td>
</tr>
<tr>
<td>β Implementing PDR system</td>
<td>β Ensure OHS is included in service provider tenders for Govt – so that can’t be undercut by those that don’t include OHS (&amp; are cheaper)</td>
</tr>
<tr>
<td>β Provide/ endorse financial and other (eg contract) incentives to employers to insure they build OHS into their services.</td>
<td>β Accommodation that is safe for community service operators (decrease workplace violence)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stop:</th>
<th>Do differently:</th>
</tr>
</thead>
<tbody>
<tr>
<td>β Medicalisation of stress</td>
<td>β Raising awareness of rights/ responsibilities</td>
</tr>
<tr>
<td>o Make solution focussed vs psychopathology</td>
<td>β Mediate (independent) earlier</td>
</tr>
<tr>
<td>o Need to look at various contributing factors not only individual factors</td>
<td>β Get in earlier</td>
</tr>
<tr>
<td>β Condoning inappropriate behaviour</td>
<td>β Risk assessment for all tasks/ activities/ jobs</td>
</tr>
<tr>
<td>β Assuming management has sills to manage stress</td>
<td>β Work performance appraisals</td>
</tr>
<tr>
<td>β Focussing on $’s as main indicator of organisation’s performance</td>
<td>o Effective and early</td>
</tr>
<tr>
<td>β Including insurers as a major stakeholder.</td>
<td>β Better induction/ orientation</td>
</tr>
<tr>
<td></td>
<td>β Training/ support/ mentoring for managers &amp; staff</td>
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</tbody>
</table>
### Union

**Stop:**
- Union bashing/ employee bashing member for being active
- Passing the member around or members “doctor shopping”
- Playing HR roles -- refer members back to internal procedures if not yet attempted. Take issue up if unresolved. Offer advice and assist.
- Dependence on Union Head Office -- “empower”
  - Give back ownership of issued to members
  - Members to actively participate in creating solutions

**Start:**
- Providing more education to staff and members
- Upskill staff members
- Specialist teams within organisation - at workplaces

**Continue/ increase efforts:**
- Fight for reasonable workloads/ better conditions enforce Award conditions
- Fight for reasonable comp. for psychological injuries
- Fight for greater recognition of stress as valid workplace injury
- Fight for better policies/ procedures in organizations (DCs JCCs)

**Change:**
- Continuity of case/ issue management (with back up)
- Workload— better/ even distribution
- Staffing levels
- Management attitude to unions collaborate not adversarial
- Media & community attitudes to Unions — there to help

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### Aged/ Disability

**Stop:**
- Culture of “blame”
- Leaving issues/ problems until they escalate
- Stop ignoring/ denying problem
- Stress g claim link
- Focus on stress “end result”

**Start:**
- Educate re “stress” — perceptions — issues — different reactions
- Assess/ investigate each individual “matter”
- Train/ educate managers and staff to identify issues
- Address problem
  - Communication external expertise
  - Consultation where appropriate
  - Holistic approach (EAP)
- Stress management strategy
- To focus on causes

**Change:**
- Approach to reporting “stress” — an option available other than manager
- Expectation to reporting means “no response” to appropriate response
- Look at stressor “unique” to your workplace address
What helps and hinders?

Finally, the whole group identified factors that support and hinder good practice and the possible strategies for dealing with them. We asked the group to identify those things that are drivers and barriers.

<table>
<thead>
<tr>
<th>BARRIERS</th>
<th>STATUS QUO</th>
<th>DRIVERS</th>
</tr>
</thead>
</table>

**BARRIERS**
- Increase communication/consultation between mfrs/staff
  - Performance management—feedback
  - Management development
  - Professional supervision
  - Induction/development
  - Ongoing support, training
- Increase recruiting—honest and standards
- Supervisor role—model—mentor—support
  - Chance increase resources; staffing
- Identify OHS risks—assess: Controls
  - Understand warning signs and take action
  - Responsibility of both parties

**STATUS QUO**

**DRIVERS**
- Reasonable workload committee (Health)
- Workload measurement tools (Health)
- Workplace risk assessment happening
- OHS legislation
- Increasing cost of claims
- Review points for policies and procedures
- Accreditation standards
- Funding arrangements
- Awareness of stress as an issue
- Consultation arrangements
- Strategic planning cycle for OHS
- Clear accountabilities for mfrs with appropriate resources (responsibility and resources)
- Building resilience as part of CBT—part of formal training
- DoH—SAC procedures
  - Numerical profile
<table>
<thead>
<tr>
<th>Hinders</th>
<th>Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Caseload =&gt; time</td>
<td>- Networking</td>
</tr>
<tr>
<td>- No. of accreditation bodies across the industry</td>
<td>- Programs to suit small NGOs</td>
</tr>
<tr>
<td>- NGOs don’t have resources to develop policies/ procedures/ participate in accreditation processes</td>
<td>- Sharing resources</td>
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<tr>
<td>- Incentives can encourage cost shifting to w/ c particularly in large orgs and at mgmt level. Different experience for large</td>
<td>- NGO funders to support process (eg generic tools)</td>
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<tr>
<td>- Negative reactions to driving w/ c costs to local level — animosity</td>
<td>- Need to drive home strategic planning message</td>
</tr>
<tr>
<td>- Not enforcing accountabilities— no resources to fulfil them, or not the authority</td>
<td>- Design internal budgeting so WC costs not shifted but may have negative outcome $ not always the driver</td>
</tr>
<tr>
<td>- RTW after (psych injury eg bullying) to same work area which is unchanged</td>
<td>- Successful RTW</td>
</tr>
<tr>
<td>- Mgrs sometimes use w/ c to manage workplace problems</td>
<td>- Clear statement of triggers in different circumstances</td>
</tr>
<tr>
<td>- Lack of management skill</td>
<td>- Measurement tools</td>
</tr>
<tr>
<td>- Not knowing what we’re dealing with</td>
<td>- Matching tools to circumstances</td>
</tr>
<tr>
<td>- Insufficient tools for measure/ understand the problem g be workplace driven</td>
<td>- Constraints to use addressed</td>
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<tr>
<td>- RTW after (psych injury eg bullying) to same work area which is unchanged</td>
<td>- Encourage people to seek help - early intervention</td>
</tr>
<tr>
<td>- Mgrs sometimes use w/ c to manage workplace problems</td>
<td>- Provisional liability model</td>
</tr>
<tr>
<td>- Lack of management skill</td>
<td>- Mental handling techniques (cf manual handling) - mental 1st aid course</td>
</tr>
<tr>
<td>- Not knowing what we’re dealing with</td>
<td>- “Let’s talk about what’s going on” – opportunities to talk about conditions that lead to stress</td>
</tr>
<tr>
<td>- Insufficient tools for measure/ understand the problem g be workplace driven</td>
<td>- Quality EAPs - to provide feedback loops</td>
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<td>- RTW after (psych injury eg bullying) to same work area which is unchanged</td>
<td>- Make it comfortable for people to talk about it</td>
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<td>- Mgrs sometimes use w/ c to manage workplace problems</td>
<td>- Promoting tools that exist</td>
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<tr>
<td>- Lack of management skill</td>
<td>- Code of Practice</td>
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<tr>
<td>- Not knowing what we’re dealing with</td>
<td>- Conditions of stress</td>
</tr>
<tr>
<td>- Insufficient tools for measure/ understand the problem g be workplace driven</td>
<td>- Handling</td>
</tr>
<tr>
<td>- RTW after (psych injury eg bullying) to same work area which is unchanged</td>
<td>- Organisation should look for root causes that =&gt;stress and make changes at source</td>
</tr>
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<td>- Mgrs sometimes use w/ c to manage workplace problems</td>
<td>- ID, assess, control</td>
</tr>
<tr>
<td>- Lack of management skill</td>
<td>- An impartial group that performs this service</td>
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<tr>
<td>- Not knowing what we’re dealing with</td>
<td>- Risk mgmt approach</td>
</tr>
<tr>
<td>- Insufficient tools for measure/ understand the problem g be workplace driven</td>
<td>- Funded for SME? By w/ c?</td>
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<tr>
<td>- RTW after (psych injury eg bullying) to same work area which is unchanged</td>
<td>- $ health well-organised</td>
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<td>- Mgrs sometimes use w/ c to manage workplace problems</td>
<td>- Need health report card too</td>
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<tr>
<td>- Lack of management skill</td>
<td>- Independently assessed</td>
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<tr>
<td>- Not knowing what we’re dealing with</td>
<td>- -&gt;Numerical Profile?</td>
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<tr>
<td>- Insufficient tools for measure/ understand the problem g be workplace driven</td>
<td>- Diagnostic tools that do more than look at paper work</td>
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<tr>
<td>- RTW after (psych injury eg bullying) to same work area which is unchanged</td>
<td>- Make use of these tools</td>
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