

# Workplace stress in Victoria: Developing a systems approach

Full report May 2006

# ***Workplace Stress in Victoria: Developing a Systems Approach***

***Report to the Victorian Health Promotion Foundation  
May 2006***

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PO Box 154, Carlton South 3053, Victoria, Australia

Telephone: + 61 3 9667 1333 Facsimile: + 61 3 9667 1375

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**A/Prof Anthony D. LaMontagne, Lead Investigator**

**Amber Louie, Research Assistant**

**Tessa Keegel, Research Fellow**

Centre for Health & Society, School of Population Health

University of Melbourne 3010

Tel 03-8344-0708; fax 03-8344-0824; [alamonta@unimelb.edu.au](mailto:alamonta@unimelb.edu.au)

**A/Prof Aleck Ostry, Co-Investigator**

Department of Healthcare & Epidemiology

University of British Columbia, Vancouver

CANADA

[ostry@interchange.ubc.ca](mailto:ostry@interchange.ubc.ca)

**Andrea Shaw, Co-Investigator**

Director, Shaw Idea Pty Ltd

15 Fletchers Lane

Mt Egerton, VIC

[shawidea@cbl.com.au](mailto:shawidea@cbl.com.au)

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## FOREWORD

In recent years we have seen a rise in stress across all spheres of life, particularly in the workplace. Approximately 7.7 million Australians spend one-quarter to one-third of their waking lives at work so it is not surprising that we are seeing workplace stress emerging as a major cause of physical and mental health problems.

The direct cost of workplace injury and disease in Australia has been estimated at over \$7 billion per year nationally. Research shows clear links between an individual's occupation and their health, with distinct differences between the experiences of blue-collar and white-collar workers, men and women and older and younger employees. Numerous studies have also documented the relationship between people's working conditions and their health behaviours such as smoking, unhealthy eating and lack of exercise. Economists have demonstrated that economic factors such as income and labour market status are also prime contributors to the psychological and physical health of individuals.

The Victorian Health Promotion Foundation (VicHealth), as part of its *Mental Health and Wellbeing Plan 2005-2007*, is exploring the links between work, stress and broader health outcomes to gauge the extent of the problem and identify ways of addressing it. VicHealth has commissioned a University of Melbourne team, led by Associate Professor Anthony LaMontagne, to work with our Mental Health and Wellbeing unit to review national and international job stress research and investigate the effectiveness of using a 'systems' rather than 'individualistic' approach to address the issue.

The resulting report: *Workplace Stress in Victoria: Developing a Systems Approach*, offers compelling evidence that job stress is substantial contributor to the burden of mental illness, cardio-vascular disease and other physical and mental health problems. More importantly, this report also outlines ways forward to address these issues. Notably, the intervention review demonstrates that VicHealth's use of the determinants, or systems, approach to a range of other health issues is also the most effective approach to dealing with issues of workplace stress. We are pleased to see that VicHealth's general approach to health promotion also adds value to understanding and responding to this growing concern for working Victorians and their employers.

We believe this report will provide valuable knowledge for agencies and organisations, large and small, trying to understand and minimise job stress. I look forward to seeing some of the innovative solutions to workplace stress which will surely arise from this valuable and comprehensive research.

**Dr. Rob Moodie**

Chief Executive Officer

## ABBREVIATIONS USED

ACCI	Australian Chamber of Commerce and Industry
AIG	Australian Industry Group
ACTU	Australian Council of Trade Unions
BMI	Body Mass Index
CVD	Cardiovascular disease
CWB	Counterproductive work behaviours
DCM	Demand/control model
EBA	Enterprise Bargaining Agreement
ERI	Effort/reward imbalance
ETU	Electrical Trades Union
HR	Human resources
HSR	Health and safety representative
IHD	Ischemic heart disease
OECD	Organisation for Economic Co-operation and Development
OHS	Occupational health and safety
OCB	Organisational citizenship behaviours
OR	Odds ratio
PAR	Population attributable risk
TCFUA	Textiles Clothing and Footwear Union of Australia
VECCI	Victorian Employers Chamber of Commerce & Industry
VTHC	Victorian Trades Hall Council
VWA	Victorian Work Cover Authority
WHO	World Health Organization
WC	Workers' compensation

# EXECUTIVE SUMMARY

Job stress is a large and growing concern for working Victorians. *Workplace Stress in Victoria: Developing a Systems Approach* was commissioned by the Victorian Health Promotion Foundation and developed by a University of Melbourne team led by Associate Professor Anthony LaMontagne in consultation with VicHealth's Mental Health & Wellbeing Unit. As reflected in the chapter structure of the report, the report's aims of the report were to:

- Review the evidence that job stress is related to adverse effects on worker and organisational health;
- Review the evidence that a systems approach to addressing job stress is more effective than other alternatives;
- Assess prevalent practice in Victoria in terms of stakeholder views and activities on job stress;
- Assess patterns of job stress exposure among working Victorians;
- Estimate the contribution of job stress to ill health among working Victorians.

**Chapter 1** provides a primer on job stress and how it is measured, and summarises the epidemiological evidence on the effects of job stress on individual and organisational health. The most widely used measures of job stress come from Karasek's demand/control model and Siegrist's effort/reward imbalance model. Job stress measures from each of these models have been linked to a wide range of physical and mental health outcomes. In the well-known Whitehall studies, both of these measures have been shown to predict subsequent effects on physical and mental health (for examples, cardiovascular disease and depression). These findings have also been replicated in numerous prospective studies. Job strain – the combination of high job demands and low job control – increases the risks of cardiovascular disease (CVD) in men from 1.2 to 4-fold, and increases the risks of depression and anxiety at least 2- to 3-fold in women. These estimates are after adjustment for other known risk factors, including negative personality and socio-economic position.

Published estimates of the proportion of cardiovascular disease attributable to job strain in men range from 7–16% for job strain assessed at a single point, and up to 35% for long-term exposure. Similar or larger attributable fractions are foreseeable for depression and anxiety in women, although none have been published as yet (see new estimates in Chapter 5). Job stress has also been linked to a range of organisational impacts, such as increased absenteeism, employee turnover and workers' compensation rates.

In summary, there is strong epidemiologic evidence that job stress predicts mental illness and mental health problems, cardiovascular disease and various other adverse health outcomes. Job stress is a substantial public health problem, accounting for large preventable disease burdens, and deserving of a commensurate public health response.

**Chapter 2** presents a comprehensive review of the job stress intervention evaluation literature. Ninety-five systematically evaluated interventions were rated in terms of the degree of systems approach used. Briefly, *High* systems approach was defined as intervention that was both organisationally and individually focused, versus *Moderate* (organisational only) or

Low (individual only). The 95 studies were comparatively assessed with respect to evaluation findings, with the following conclusions reached:

**Conclusion 1:** *Studies of interventions using High systems approaches represent a growing proportion of the job stress intervention evaluation literature, possibly reflecting the growing application of such approaches in practice internationally.*

**Conclusion 2:** *Individually-focused, Low systems approaches are effective at the individual level, favourably affecting a range of individual level outcomes.*

**Conclusion 3:** *Individually-focused, Low systems approach job stress interventions tend not to have favourable impacts at the organisational level.*

**Conclusion 4:** *Organisationally-focused High and Moderate systems approach job stress interventions have favourable impacts at both the individual and the organisational levels.*

In summary, we conclude that systems approaches to job stress are more effective than other alternatives, and that benefits accrue both to individuals (for example, better health) and to organisations (for example, lower absenteeism). Further study is needed to develop the job stress intervention evidence base to guide policy and practice. Local studies that include organisational outcomes, such as absenteeism and economic measures, would be particularly valuable for encouraging organisations to adopt systems approaches in Victoria. The growing evidence base for systems approaches to job stress provides a timely opportunity for advocacy and information dissemination in Victoria, particularly in light of the qualitative and quantitative findings on job stress in Victoria detailed in Chapters 3-5 below.

**Chapter 3** presents the findings of an in-depth interview study of prevalent views and activities in the area of job stress in Victoria. A wide range of relevant stakeholder groups were interviewed including employers and employer groups, trade unions and other worker advocates, researchers and the Victorian WorkCover Authority (total of 41 individuals in 29 interviews). These stakeholders operate within a context shaped by occupational health & safety (OHS) law, which imposes specific obligations on employers to control risk (including risks to psychological health). The OHS regulator, the Victorian WorkCover Authority (VWA), is responsible for monitoring and enforcing compliance with this duty. The interviews showed that the situation is currently dominated by individually-focused understandings of the problem as well as individually-focused interventions. Nevertheless, the inadequacy of current approaches is recognised by the full range of stakeholders, and they are receptive to guidance on alternatives. Findings also indicate that a number of workplaces are achieving aspects of a systems approach to job stress, at least to some extent. However, there is currently only limited leadership on systems or public health approaches to support movement in this direction. This indicates a critical opportunity to advance systems approaches to job stress in Victoria.

The data presented in this and other chapters of the report suggest that a key strategy to achieve this would be the preparation of practical guidance materials on what to do. In particular, this should address the clear gaps in current practice, such as for marginalised workers (e.g., labour hire, outworkers). It must also address the exacerbation of job stress by non-work related issues such as family responsibilities. Currently, employers' concern for workers' compensation liability makes it hard to direct focus to the primary prevention level, including by WorkSafe Victoria. Finally, it will be critical to encourage recognition of the diversity of manifestations of job stress. Job stress is not isolated to the public sector and is manifest in many ways, not just as "stress claims."

**Chapter 4** presents the results of an empirical study comparing job stress exposure patterns to patterns of stress-related workers' compensation claims. We used the most widely studied job stress measure, termed 'job strain' – the combination of high job demand and low job control. Job strain has been predictively linked to elevated risks of cardiovascular disease, depression, and other serious health outcomes. Job strain exposure data was collected in the Victorian Job Stress Study from a representative sample of working Victorians (N = 1,101). Victorian worker's compensation (WC) data for the same year as the VJSS survey (2003) were obtained from the National Occupational Health & Safety Commission (NOHSC).

There were some areas of concordance between patterns of job strain and stress-related workers' compensation claims. For example, both job strain and claims rates were higher among females, and both were highest in the health and community services sector. But there were also important discrepancies. For example, job strain is most prevalent among younger workers in low status occupations, but claims rates are highest among middle-aged workers in higher status occupations. The sector with the highest prevalence of job strain for both males and females was accommodation, cafes and restaurants; WC stress claims from this sector, however, were not elevated. This demonstrates that workers' compensation insurance statistics – the primary drivers for most intervention efforts to date – are inadequate for the purpose of identifying the highest priorities for job stress intervention on a population level. Workers compensation statistics under-represent highly exposed groups in lower socio-economic positions. These findings offer a public health evidence-based complement to WC statistics for guiding policy and practice in this area.

**Chapter 5** provides an estimate of the contribution of job stress to ill health among working Victorians. We combined job strain exposure patterns from the Victorian Job Stress Survey with published estimates of job stress-associated risks of cardiovascular disease and depression to yield estimates of the proportions of CVD and depression attributable to job strain among working Victorians. For men, the proportion of CVD attributable to job strain could exceed one-third, whereas for women it may be up to roughly one-seventh of all CVD cases. For depression, the high-end estimates are reversed for men and women, with job strain accounting for as much as one-third in rates of depression among women, versus up to one-fifth for men. These estimates indicate that job stress represents a substantial public health problem in Victoria. Further, job strain and associated CVD and depression risks are inequitably distributed, with lower skill level working Victorians most likely to be adversely affected.

In conclusion, this report provides compelling justification for action in the area of job stress. In short, we have demonstrated that job stress is a serious public health problem that can be addressed effectively using a systems approach. We have also identified barriers and facilitators to action, as well as evidence of a critical opportunity to advocate for systems solutions to this problem. Finally, we have identified new priorities for job stress intervention along with evidence that job stress is a significant contributor to health inequities in Victoria. A substantial and inequitable disease burden could be addressed by applying a systems approach to job stress in Victoria.