



THE UNIVERSITY OF
WESTERN AUSTRALIA

Submission to the Standing Committee inquiry into mental illness in fly-in, fly-out workers

Prepared by the Energy and Minerals Institute and key UWA research leaders

September 2014

INQUIRY TERMS OF REFERENCE

The Education and Health Standing Committee will review and report on the mental health of fly-in, fly-out workers. In particular, the Committee will inquire into:

- a) the contributing factors that may lead to mental illness and suicide amongst FIFO workers;
- b) the current legislation, regulations, policies and practices for workplace mental health in Western Australia; and
- c) current initiatives by government, industry and community, and recommend improvements.

ABOUT THE UNIVERSITY OF WESTERN AUSTRALIA, ENERGY AND MINERALS INSTITUTE

The University of Western Australia was established 'to advance the welfare and prosperity of the people'¹. The University celebrated its centenary in 2013 and is now ranked 88th in the world and fourth in Australia according to the world's foremost performance indicator, the Academic Ranking of World Universities published by China's Shanghai Jiao Tong University. Universities are important drivers of innovation and the sector creates the conditions essential for sustained national prosperity.

The University launched the Energy and Minerals Institute (EMI) in 2010 to further align the University with the largest economic sector in Western Australia. Originally founded through resource-led endowments and philanthropy at the turn of the 20th Century, UWA has sustained a productive relationship with the State's resources industry and has had a longstanding engagement with key resource projects in our State.

The Energy and Minerals Institute (EMI) operates as a network institute and its mission is 'to enhance and connect UWA's talent and capability across the energy and minerals value chain, build multidisciplinary networks and strengthen partnerships with industry and external stakeholders'.

The Institute's core functions are to develop UWA strategy within a university-wide portfolio, execute a multi-disciplinary/cross-Faculty business development program, advocate and communicate for UWA's world-class capability, provide operational support and formal representation and governance for specific UWA initiatives in the energy and minerals portfolio.

EMI supports UWA researchers to connect with current issues and help find solutions to real world problems. Ongoing consultation between UWA and industry and government assists researchers to design relevant research studies to enhance the resources sector and address issues that reflect our fast-paced world with its new technologies and changing social, economic and environmental parameters.

¹ Preamble, *University for Western Australia Act*, 1911

UWA Centre for Safety

EMI is well-placed to connect (energy and minerals) industry and government needs to relevant expertise residing within UWA across disciplines. Through EMI, UWA has established a Centre for Safety led by **Professor Mark Griffin**, an organisational psychologist researcher. The Centre for Safety aims to achieve a step change in safety: innovation through people, technology, and performance. The Centre acts as a portal to all safety-related research across UWA, drawing together world renowned safety experts from the diverse experience across the University in collaboration with industry and government partners to build innovative safety capabilities and provide policy recommendations for industries, organisations, and people.

The vision for the Centre is to better understand safety issues in organisations from a ‘whole of Business’ perspective and offer solutions through a step change in safety. Expertise within the Centre includes areas such as biomechanics, business, engineering, health, psychology and sports science. The breadth of innovative research spans safety leadership, dynamic safety capability, automation and remote monitoring, resilience and process engineering, fatigue management, mental health and employee well-being, environmental management, sustainable practice, and social impact.

The Centre aims to build its international reputation and influence, through collaboration and promotion, to export the knowledge generated from the WA resources sector to other parts of the world operating in high risk environments. This includes understanding the changing work environment and issues that impact the workforce. For the resources sector, the flexible work place and distance commuting is one area that is being investigated by UWA researchers and will contribute to evidence-based decision making by resource and service companies, and government.

EMI-UWA RECOMMENDATION

To enable evidence-based decision making, EMI advocates longitudinal research studies to investigate issues connected with the resources sector work environment, particularly in relation to mental health, suicide and well-being amongst the fly-in-fly out (FIFO) workforce.

BACKGROUND

Over 50 years of research and practice informs current knowledge of workplace mental health. We now understand that multiple factors influence mental health ranging from the design of work and organisations to the quality of relationships at work. We also understand that mental health is not a single phenomenon but ranges from positive outcomes such as resilience and engagement to negative outcomes such as chronic disease and mental illness.²

It is important to consider the tragedy of suicide in light of our overall understanding of workplace mental health. Two fundamental learnings should be acknowledged when addressing mental health outcomes.

First, no single factor is likely to cause mental health outcomes³. Although work arrangements including remote locations can certainly play a part, it is unlikely that these factors alone will constitute the determining factor. It is essential that work arrangements such as FIFO are considered in relation to the variety of other factors that influence mental health. These other factors include but are not limited to workplace supports available for employees, the nature of the tasks required and how they are organised, the management and team networks in which an employee is located, and individual circumstances that might influence mental health.

Second, negative mental health outcomes are the culmination of many experiences over time⁴. Serious outcomes such as depression do not arise suddenly but are a function of multiple experiences within work and outside of work⁵. It is useful to consider mental health as a pathway that is shaped by many different experiences. This pathway can diverge over time in different directions, both positive and negative. The workplace can influence the direction of this pathway, not only to prevent negative outcomes but also to support and enhance more positive mental health.

For example, **Professor Colin MacLeod** is a leading UWA researcher in the field of cognition and emotion and his research focuses on understanding the thought process that underpins emotional vulnerability and resilience. Through taking a positive approach to understanding stress and coping, Professor MacLeod has been investigating patterns of selective information processing (or cognitive biases) that may underpin mental health problems and examining the causal contributions of these biases to anxiety, worry and depression. Professor MacLeod and his team are developing cognitive bias modification techniques to contribute to the emotional well-being of the Australian community. Some of this work is focused on developing methods to increase psychological preparedness and establish community resilience. This research, in the context of bushfire preparedness, is building stress resilience for the future, lowering the severity of the stress consequences and identifying higher adaptability, improved understanding and interpretation of stressful situations leading to better decision making and judgements.

² Parker, S.K., Turner, N., & Griffin, M.A., (2003). Designing healthy work. In D.A. Hofmann and L.E. Tetrick (Eds). *Health and safety in organizations: A multi-level perspective*. (pp. 91-130). Jossey-Bass: California

³ World Health Organization. (2001). The World health report: 2001: Mental health: new understanding, new hope.

⁴ Griffin, M. A., & Clarke, S. (2011). Work stress and well-being. In S. Zedeck (Ed.). *Handbook of Industrial/Organizational Psychology*. American Psychological Association: Washington DC.

⁵ Parker, S. K., Andrei, D., & Li, W. (2014). An overdue overhaul: Revamping work design theory from a time perspective. In Shipp, A., & Fried, Y. *Time and Work: How Time Impacts Individuals*. Current Issues in Work and Organizational Psychology Series, East Sussex, UK, Psychology Press.

As a further example, **Professor Sharon Parker** is a leading UWA researcher in the field of work design and mental health. Her research focuses on understanding how to design work that is 'good for people' (their mental and physical health) and 'good for business' (performance, productivity and innovation). A great deal of research, including that by Professor Parker, has shown that features of work such as the level of job autonomy and the level of job demands (e.g. time pressure, excess work load, unclear role expectations) can have a significant and sustained effect on employee health and well-being⁶. From this perspective, improving mental health at work is often less about changing the individual and more about changing the work, including how it is designed and how it is led. Professor Parker and her team's research also shows that managers and others involved in designing work have a natural tendency to design work that is lacking important work characteristics, and therefore they will frequently benefit from training and development on this topic. There have been a number of research studies on FIFO that reflect challenges and pressures peculiar to the FIFO work force, different to - though perhaps not greater than - challenges and pressures associated with the contemporary working environment. The future of work is evolving into a flexible and highly adaptable working environment, which is also true for the working environment within the resources sector.

In February 2013, the Federal Government commissioned an inquiry into FIFO/DIDO issues. This produced the report 'Cancer of the bush or salvation for our cities'. There were several recommendations of this report which EMI-UWA would like to be considered for the State inquiry into the FIFO workforce, whereby research should be undertaken to enhance the understanding of issues impacting the well-being of FIFO staff and best-practice integration of well-being initiatives and services for FIFO staff.

The Federal report highlighted that most of the evidence was anecdotal or not specific to FIFO workforces⁷. Organisations such as BeyondBlue requested more research into the prevalence of mental health issues in the FIFO workforce, and that is important to consider this in the broader context of research on individuals' use of mental health services. There is a lack of data relating to the health impacts of the FIFO workforce and there isn't any current evidence which supports a claim that mental health issues were any higher in the FIFO worker population than in the wider workforce.

This is supported by **Professor Neville Bruce**, from the Centre for Integrated Human Studies at UWA, who supervised a study examining the personal issues of FIFO workers, *The impacts of Fly-in/Fly-out commuting on employee's stress, lifestyle, relationships & health*, found that FIFO had no negative impact on worker's relationships, lifestyle, health or stress levels⁸.

⁶ Parker, S. K., Andrei, D., & Li, W. (2014). An overdue overhaul: Revamping work design theory from a time perspective. In Shipp, A., & Fried, Y. *Time and Work: How Time Impacts Individuals*. Current Issues in Work and Organizational Psychology Series, East Sussex, UK, Psychology Press.

⁷ *The Parliament of the Commonwealth of Australia, House of Representatives Standing Committee on Regional Australia* (February 2013) FIFO Report 'Cancer of the bush or salvation to our cities?',

⁸ Clifford, S., Sanders, K., Bruce, N. 2006, 'Living the fly-in/fly-out life: The lifestyle and health of Australian fly-in/fly-out mining employees and their partners', *17th Annual Scientific Meeting of Australasian Society for Human Biology*, Germany, 57, pp. 221

Nevertheless, it should be recognised that mental health issues are an important issue in the wider workforce, so equivalence with the wider workforce is not an argument for inaction. See for example the recently established Mentally Healthy Work Place Alliance⁹ and see Safework Australia¹⁰ for extensive analysis and guidance on the topic of mental health at work.

There are a number of employers that have implemented health and wellbeing programs and there is an opportunity to assess the effectiveness of these programs to implement best-practice solutions to address mental health issues in the resources sector.

Specifically, EMI-UWA would like to support the following recommendations outlined in the Federal FIFO report (February 2014):

"Recommendation 8

The Committee recommends that the Commonwealth Government commission a comprehensive study into the health effects of fly-in, fly-out/drive-in, drive-out work and lifestyle factors and as a result of this research develop a comprehensive health policy response addressing the needs of fly-in, fly-out/drive-in, drive-out workers.

The Committee recommends that the Commonwealth Government commission research into the economic and social impacts of establishing regional centres as fly-in fly-out source communities.

Recommendation 10

The Committee recommends that the Commonwealth Government commission research on the effect on children and family relationships of having a long-term fly-in, fly-out/drive-in, drive-out parent."

Appendix 1 demonstrates the expertise which exists at UWA to undertake research to provide the Western Australian government with evidence-based decision making capability to address issues related to the mental health of fly-in, fly-out workers.

EMI-UWA would also like to highlight the importance of examining the broader work context in relation to mental health. As noted above, there is extensive evidence on the role of work-based factors such as job autonomy, job demands, and social support in affecting employee mental health and well-being.

⁹ Web reference: <http://www.workplacementalhealth.com.au/home/about-the-alliance.aspx>

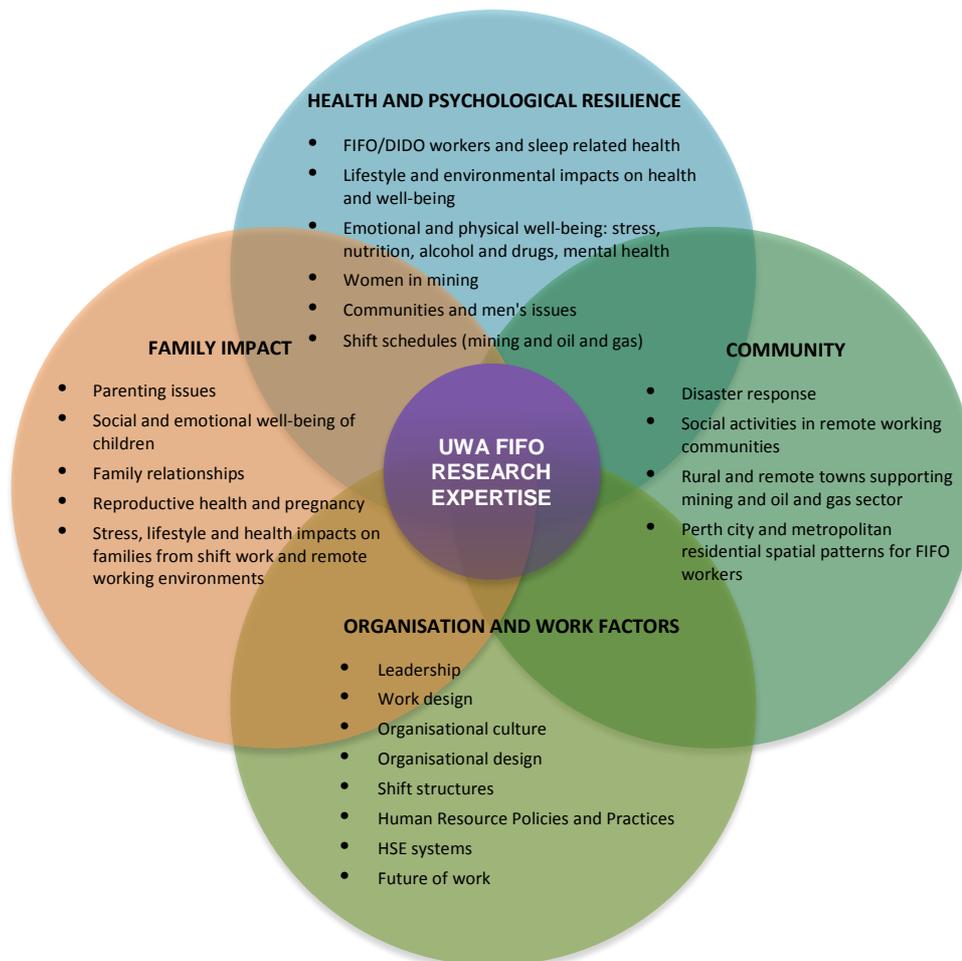
¹⁰ Web reference: <http://www.safeworkaustralia.gov.au/sites/swa/about/publications/pages/rr200604workrelatedmentaldisordersinaustralia>

APPENDIX 1

UWA FIFO-Relevant Research Capability

The breadth of research expertise linked with the theme of Fly-in-Fly-Out (FIFO) extends across various disciplines of the University and is captured under the broad themes of Health and Psychological Resilience, Family Impact, Community and Organisation and Work Factors, as shown in Table 1.

TABLE 1: Summary of UWA research related to Fly-in-Fly-Out workers



The research areas related to mental health resilience in the FIFO context spans business, psychology, anatomy, physiology and anthropology. The list below provides an outline of projects being undertaken at UWA which investigates the impact of work environments and would have relevance to the FIFO workforce in the resources sector.

Health and Psychological Resilience

- Health promotion messages – alcohol and tobacco use, obesity and mental health.
UWA Researcher(s): Simone Pettigrew, Business
- Sleep and sleep-related health in FIFO/DIDO workers and their families.
UWA Researcher(s): Peter Eastwood, Romola Bucks, Kim Ward, Centre for Sleep Research
- Thermal physiological effects and performance.
UWA Researcher(s): Shane Maloney, Daniel Green, Anatomy
- Lifestyle impact on health and well-being.
UWA Researcher(s): Rebecca Braham, Exercise, Health and Sport Psychology

- Sexual health and practices.
UWA Researcher(s): Paul Magnin, Geography, Leigh Simmons, Biology
- Women in mining
UWA Researcher(s): Sandy Gordon, Exercise, Health and Sport Psychology
- Financial management by FIFO workers.
UWA Researcher(s): Marylene Gagne, Psychology and various researchers in Business
- Building emotional resilience.
UWA Researcher(s): Colin McLeod, Lies Notebaert, Patrick Clarke, Psychology
- Chemical detection of stress and drugs (quantified)
UWA Researcher(s): Plant, Energy and Biology
- Building stress and burnout resilience.
UWA Researcher(s): Bob Grove, Exercise, Health and Sport Psychology
- Risk of suicide.
UWA Researcher(s): Andrew Page, Psychology
- FIFO communities and men's issues.
UWA Researcher(s): Peter Elford, Anthropology
- Promoting effective recovery from work demands amongst managers.
UWA Researcher(s): Sharon Parker, Francesco Cangiano, and Gillian Yeo, Business

Family Impact

- Social and emotional well-being of children.
UWA Researcher(s): Jeneva Ohan, Psychology
- Parent – offspring relationships, mating patterns and earning balance.
UWA Researcher(s): Debra Judge, Anatomy, Physiology and Human Biology
- Stress effects on family relationships and reproductive health outcomes.
UWA Researcher(s): Kathy Saunders, Anatomy, Physiology and Human Biology
- Fathering Project.
UWA Researcher(s): Bruce Robinson, School of Medicine and Pharmacology.
- Fly In Fly Out (FIFO) Families With Young Children: Challenges, adaptations and connectedness in communities.
UWA Researcher(s): Prof Lisa Wood & PhD candidate Cecily Strange, Centre for the Built Environment and Health and Population Health
- The Effects of Fly-in/Fly-out Commute Arrangements and Extended Working Hours on the Stress, Lifestyle, Relationship and Health Characteristics of Western Australian Mining Employees and their Partners.
UWA Researcher(s): Neville Bruce and Susan Clifford, Anatomy, Physiology and Human Biology
- FIFO Pregnancy Study: Stresses and Successes including Message to my Baby about FIFO.
UWA Researcher(s): Lorili Jacobs, PhD Candidate, Sandra Thompson, Angus Cook, Kimberley McAuley, School of Population Health

Community

- Disaster response in the home community.
UWA Researcher(s): Bryan Boruff, Earth and Environment
- Social capital with participation in team sport.
UWA Researcher(s): Peter Buzzacott, Sport Science, Exercise and Health
- Developing vibrant Pilbara towns to support the mine workers.
UWA Researcher(s): Matthew Tonts, Paul Plummer, Sharon Biermann, Kirsten Martinus, Clare Mouat, Sarah Prout, Centre for the Built Environment
- FACTBase: Economic specialisation in mining – A spatial assessment
UWA Researcher(s): Veronica Huddleston (in collaboration with the City of Perth)

Organisation and Work Factors

- Safety – leadership, assessment, stress effects and work design to improve safety.
UWA Researcher(s): Mark Griffin, Troy Visser, Centre for Safety
- Learning strategies and platforms.
UWA Researcher(s): Geoffrey Meyer, Stuart Bunt, Neville Bruce, Anatomy, Physiology and Human Biology and Mark Paynter, Centre of Excellence in Natural Resource Management
- Future of work: the changing work environment and its implications for health and well-being of the workforce
UWA Researcher(s): Sharon Parker, Business, Karina Jorritsma, Psychology
- Improving the way managers design work for health, motivation, and performance
UWA Researcher (s): Sharon Parker, Daniela Andrei
- Shift schedules on North Sea oil/gas installations: A systematic review of their impact on performance, safety and health.
UWA Researcher(s): Kathy Parkes, Business