



CENTRE FOR  
**TRANSFORMATIVE  
WORK DESIGN**

# Impact of FIFO work arrangements on the mental health and wellbeing of FIFO workers

Report produced for the WA Mental Health Commission  
(September 2018)



**Curtin University**

FUTURE OF WORK INSTITUTE



Government of Western Australia  
Mental Health Commission

THE UNIVERSITY OF  
**WESTERN  
AUSTRALIA**





## Foreword from the research team

On behalf of the team, I am pleased to present this important research. We bring together findings from a literature review with a comprehensive analysis of 59 FIFO studies, a survey of more than 3000 FIFO workers, in-depth interviews, surveys of FIFO partners and former FIFO workers, and a study that tracks how workers' experiences vary across five points of a swing.

The findings across all of these sources of evidence are remarkably consistent. The research shows that, even when taking account of associated risk factors such as age and education, there is a *greater risk of mental ill health amongst those workers operating under FIFO work arrangements*. Indeed, one third of the 3000 FIFO workers surveyed experience high or very high levels of psychological distress, as measured on an extensively validated scale.

This greater mental health risks for FIFO workers is a clear and critical finding. Irrespective of the many other detailed findings in this report, including some neutral or even positive aspects: the greater mental health risk for this population must be a central take away message.

Crucially, poorer mental health and riskier alcohol and other drug use are risk factors for suicide, and both of these risk factors are present in the FIFO sample. In addition, FIFO workers have a demographic profile (gender, age, education, job role) in which suicide likelihood is greater, while also reporting feelings of loneliness, stigma, bullying and perceived lack of autonomy. Altogether, this pattern of findings suggests that FIFO workers are likely to be at greater risk of suicide.

What is also clear from this research is that there is *much that can be done to mitigate or prevent these mental health risks*. The current research aligns with, and deepens, the findings of the 2015 WA Parliamentary Inquiry Report "The impact of FIFO work practices on mental health". Our research systematically links an array of factors (e.g., bullying, culture, rosters, coping styles) to the mental health, use of alcohol and other drugs, and wellbeing of FIFO workers. We identify 18 recommendations as to how employers, individual workers, and families can take active steps to improve the experience of FIFO work.

We urge industry, unions, government and other stakeholders to take the lead in embracing these recommendations. FIFO work arrangements are likely to be here for some time to come. By owning the issue, there is a chance to make a powerful difference to the lives of FIFO workers and their families. Indeed, addressing many of the recommendations will improve the mental health of all workers. And acting on many of the recommendations will not only reduce the mental health risks of FIFO work, but will foster greater productivity and use of worker talent as well.

FIFO workers and their families and friends have willingly entrusted their experiences to us. We hope that, by researchers, industry, government, and other stakeholders coming together, we can honour those experiences and lead the way to ensure the mental health and wellbeing of this crucial workforce for the Western Australian economy.

Yours sincerely,

ARC Laureate Fellow Sharon K. Parker

## Research team, Reference group and Acknowledgements

This research was supported by funding from the Western Australian Mental Health Commission (MHC508) on behalf of the McGowan Government. The research was conducted in response to recommendations from the Education and Health Standing Committee (2015) on FIFO mental health and concerns raised by families.

### Research team

This research has been led by the Centre for Transformative Work Design, Curtin University. Authors of the report are as follows

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### Research reference group

We would like to acknowledge the research reference group who have provided guidance, support and helped with reaching out to FIFO workers through their networks. The reference group includes members from the following groups:

- Australian Manufacturing Workers' Union (AMWU)
- Chamber of Minerals and Energy (CME)
- Construction Forestry Mining & Energy Union (CFMEU)
- Department of Mines, Industry Regulation and Safety (DMIRS)
- Family representatives
- Lifeline WA
- Unions WA
- WA Association for Mental Health (WAAMH)
- WA Mental Health Commission
- WA Network of Alcohol and Other Drug Agencies (WANADA)
- WA Primary Health Alliance (WAPHA)

We would like to thank Dr Kathy Parkes for sharing her knowledge on FIFO work. We would like to take this opportunity to thank all of the FIFO workers who have contributed to this research, and who took the time to share their experiences with us, either through the surveys or the interviews.

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<sup>1</sup> The first two authors are joint first authors.

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# Executive Summary

*Impact of fly-in, fly-out work arrangements on the mental health and wellbeing of FIFO workers*



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## Background to the Research

The resource industry is central to Western Australia's economy with mining contributing 29% of the gross state product in 2016–17<sup>2</sup>. Western Australia is a vast state and the remote location of mineral and resource deposits requires workers to spend extended periods of time away from home. Fly-in, fly-out (FIFO) work practices are therefore common in Western Australia (WA), with the industry providing employment for an estimated 60,000 people<sup>3</sup>, of which the majority are male. The Education and Health Standing Committee has also estimated 9.3% of WA's population is directly impacted by FIFO work arrangements.

Mental health issues are a growing problem for Australia, and indeed, Western society. According to a study by Price Waterhouse Cooper<sup>4</sup>, untreated mental health conditions cost Australian employers \$10.9 billion every year (a combination of absenteeism, presenteeism and compensation claims). It is estimated that every \$1 invested by employers in interventions to improve mental health resulted in a return of \$2.30. For the resource sector the ROI was even higher at \$5.70.

For workplaces, health needs to be understood as more than the absence of ill-health, injury or disease. The World Health Organization (WHO) defines mental health as a state of wellbeing in which the individual realises their own potential, can cope with the normal stresses of life, can work productively and is able to make a contribution to their community. There is a growing body of research that demonstrates that good work design and a positive workplace culture enhances the wellbeing of employees. Therefore, it is important for employers to identify work practices which may harm their employees' mental health as well as those which support workers to thrive.

It is important to recognise the legal responsibilities of employers and identify the specific psychosocial risks of FIFO work arrangements (e.g. loneliness, accommodation, rosters and transitions). This represents an opportunity for the resource sector to build upon the initiatives that already exist in the sector (e.g. Chamber of Mineral and Energy's (CME) Blueprint for Mental Health and Wellbeing and the WA Department of Mines Code of Practice, currently under development). Incorporating the findings and recommendations from this and other research assists in understanding the range of variables so that employers can shape FIFO work to minimise the negative effects on employee mental health and support them to thrive. It is noted that the resource sector is widely committed to health and safety practices that cause "Zero Harm".

General statistics on mental health and suicide place FIFO workers in an "at risk" group in terms of their demographic of gender and age. "Excluding males aged 85 years and over, the age-specific deaths rates were the highest in males 30–34 and 40–44 years of age. Deaths from intentional self-

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<sup>2</sup> Government of Western Australia, Department of jobs, Tourism, Science and Innovation, 2018

<sup>3</sup> Chamber of Minerals and Energy of WA, 2015; as cited in Education and Health Standing Committee, 2015

<sup>4</sup> Price Waterhouse Cooper (2014). Creating a mentally healthy workplace—Return on investment analysis. Retrieved from [https://www.headsup.org.au/docs/default-source/resources/beyondblue\\_workplaceroi\\_finalreport\\_may-2014.pdf](https://www.headsup.org.au/docs/default-source/resources/beyondblue_workplaceroi_finalreport_may-2014.pdf)

harm occur among males at a rate three times greater than that for females.” Suicide numbers have been growing over the last ten years, with eight people per week taking their lives in WA<sup>5</sup>.

In recent years, FIFO workers have been the focus of community and political concern in Western Australia, with reports in the media related to the impact of FIFO work, mental health and suicide. This was the impetus to a WA Parliamentary Inquiry into the impact of FIFO work practices on mental health conducted by the Education and Health Standing Committee in 2015. The Inquiry concluded there was a need for further “independent research into the mental health impacts of fly-in, fly-out work arrangements on workers and their families”<sup>6</sup>.

In response to the WA Parliamentary Inquiry’s recommendation, the WA Mental Health Commission funded this research. Members of the research team are from Curtin University and UWA, and have specialist expertise in psychology, social work, use of alcohol and other drugs, suicide, mental health, work design, health and safety, FIFO work and multivariate statistical analysis. A reference group with representatives from key stakeholder groups (WA Mental Health Commission, industry, unions, mental health organisations, alcohol and other drug organisations and FIFO family representatives) provided advice and feedback on the design, implementation and interpretation of the research.

## Research Questions and Methods

This research was commissioned to address the following Key Evaluation Questions (KEQ):

1. *What are the mental health impacts/benefits of FIFO work arrangements (if any) on (a) FIFO workers? and (b) FIFO families?*
2. *What are the possible harmful drinking habits, alcohol consumption and use of illicit drugs by FIFO workers and how does this use impact their mental health?*
3. *What positive/negative strategies do FIFO workers and their families use to reduce the mental health impact associated with FIFO work arrangements?*

The research drew on the concepts of mental health and wellbeing identified in the literature review. Five key measures were used to assess **mental health**:

- Psychological distress (e.g. generalized feelings of anxiety and depression in one’s life).
- Thwarted belonging (the extent to which individuals believe their need to belong is met or unmet). This dimension is part of a measure of suicide risk.
- Perceived burdensomeness (the extent to which they perceive themselves to be a burden on the people in their lives). This dimension is part of a measure of suicide risk.
- Suicidal intent (thoughts and plans about suiciding). This dimension is part of a measure of suicide risk.
- Burnout (mental exhaustion due to prolonged periods of stressors experienced on the job).

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<sup>5</sup> Australian Bureau of Statistics. (2016). Suicide In Australia. Retrieved from <http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/3303.0~2016~Main%20Features~Intentional%20self-harm:%20key%20characteristics~7>

<sup>6</sup> Education and Health Standing Committee. (2015). The impact of FIFO work practices on mental health. Perth, Western Australia: Legislative Assembly, Parliament of Western Australia. Retrieved from <http://resources.news.com.au/files/2015/06/19/1227405/202450-fiforeport2.pdf>

Three key measures were used to assess workers’ general **wellbeing**:

- Emotional wellbeing (life satisfaction and happiness).
- Psychological wellbeing (people’s feelings of self-acceptance and personal growth).
- Social wellbeing (having trust in a good society).

In the Executive Summary, any reference to differences in, or prediction of, “mental health and wellbeing” means differences in (or prediction of) all five mental health measures and all three wellbeing measures. When referred to as “the majority”, this means there are differences in, or prediction of, six or more measures.

Bullying, sleep, and physical pain were other factors associated with mental health and wellbeing, and were also addressed in the research.

The KEQ questions were addressed through application of four research methods:

<p><b>1. Literature Review</b></p>	<p>An initial literature review of existing FIFO research.</p>
<p><b>2. Survey Study</b></p>	<p>The main cross-sectional survey study that compared 3,108 FIFO participants against:</p> <ul style="list-style-type: none"> <li>a) A benchmark group of 326 people who were representative of the broader West Australian FIFO population according to gender and working age; and</li> <li>b) Relevant comparative norm groups (e.g. Australian National Survey of Mental Health and Wellbeing, 2007; National Drug Strategy Household Survey, 2016) drawn from the wider general population. Appropriate norms were obtained for each measure, where possible.</li> </ul> <p>The main survey study also included an analysis of work, family and personal factors that predict the mental health of FIFO workers.</p> <p>Two supplementary surveys included 373 FIFO partners and 487 former FIFO workers.</p>
<p><b>3. Longitudinal Study</b></p>	<p>A longitudinal study of 205 FIFO workers (working on either a 14/7 or 8/6 roster) that tracked mental health and other experiences five times across the swing.</p>
<p><b>4. Interview Study</b></p>	<p>An interview study with 24 FIFO workers and 16 families/friends. This study provided a qualitative, more in-depth understanding of FIFO workers’ and their partners’ experiences of fly-in, fly-out work, especially strategies used by individuals and families.</p>

## Research Strengths and Limitations

The research has strengths and limitations. As far as possible, the research team sought to mitigate against the limitations.

**Strengths.** Strengths of the research include:

- That it is based on a comprehensive analysis of existing research.
- That a multi-method approach was used that enabled quantitative breadth (a large and diverse sample of FIFO workers completed the survey) as well as qualitative depth (detailed interviews with a sub-sample of FIFO workers).
- Present and past FIFO workers were included, as well as FIFO family and friends.
- That a longitudinal study tracked FIFO worker experiences across a full swing.

**Limitations.** The research also has limitations:

- Most importantly, the cross-sectional nature of the research means it is not possible to establish the causal impact of FIFO work on mental health. Doing so definitively would require a randomised control group design<sup>7</sup> in which workers are measured, then randomly allocated to carry out either FIFO work or non-FIFO work, with both groups then being re-assessed over time.
- The sample obtained for the FIFO survey might not be representative of the FIFO working population. However, it is not possible to know whether participants in the research are fully representative of the FIFO working population. Participants in any research do so on a voluntary basis and it is possible that confounding attributes affect participation (e.g. those most negative about FIFO work might be more likely to do the survey; equally, those most negative about FIFO work might be more likely to not do the survey).
- The benchmark sample differed from the FIFO sample of demographic and occupational attributes. Specifically, the benchmark group was older, more educated and included more managerial and administrative jobs. This means that differences in these groups on other variables might be attributable to their demographic and occupational differences.

**Mitigating causality limitations.** With respect to causality, as well as cross-sectional survey comparisons, the weight of evidence is enhanced by the diversity of the research methods. For example:

- With respect to the main survey, as well as comparing the mental health of FIFO workers against a comparison group and norms, regression analyses were conducted to understand which individual, work, family and team factors statistically predict the mental health of FIFO workers.
- The surveys of past FIFO workers provide insights into how some FIFO workers perceive their experience after leaving this type of work arrangement.

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<sup>7</sup> Kendall, J. M. (2003). Designing a research project: randomised controlled trials and their principles. *Emergency Medicine Journal*, 20(2), 164-168.

- The interviews provide detailed descriptions of FIFO workers lived experiences, showing how, in the eyes of FIFO workers themselves, these arrangements affect their own lives and their families' lives.
- The longitudinal study of workers' experiences across a swing (both at work and away from work) enhances our understanding of the effect of transitions.

Whilst each research method individually can be critiqued, as in research in other complex domains, it is the triangulation of findings across multiple methods that tends to be most informative.

**Mitigating representativeness.** The research team took steps to obtain as representative a sample as possible. The survey distribution strategy deliberately relied on multiple stakeholder groups (e.g. unions, industry groups). The size of the sample of FIFO workers is also large, which increases the likelihood that the sample is representative.

**Mitigating benchmark group differences.** When comparing the benchmark and FIFO sample on the key mental health and wellbeing outcomes (see above), we statistically co-varied out the effects of age, education and professional role to minimise the extent that mental health differences can be solely attributed to occupational or demographic differences.

In this Executive Summary, all references to 'significant' refer to differences or associations that are statistically significant. A statistically significant effect means that the observed difference or association is "very unlikely to have occurred given no difference or association".

## KEQ 1a: Mental health impacts/benefits of FIFO work arrangements on workers

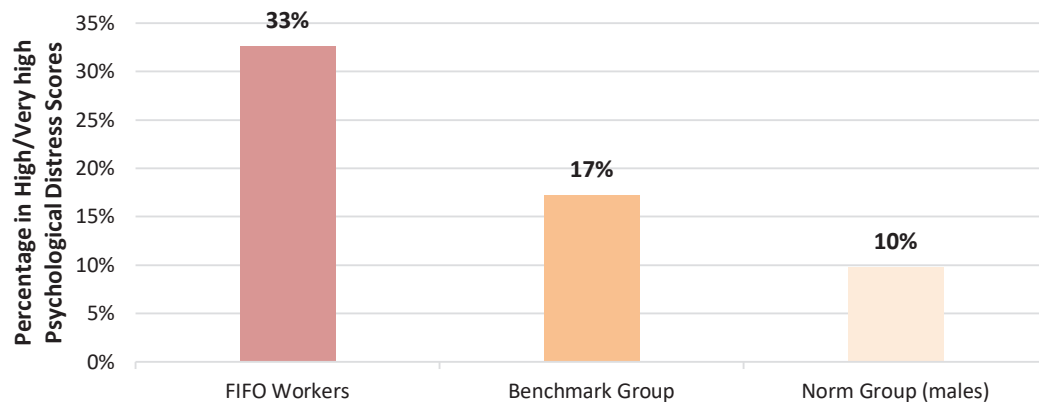
The main findings in response to KEQ1a are drawn from the literature review, survey study, longitudinal study and interview study.

In the literature review, 59 research articles were taken into account. Although findings are mixed and the overall study quality is low, most studies report depression, anxiety and stress to be issues that are likely to be associated with FIFO work. One important limitation is that the literature does not provide an understanding of which aspects of FIFO work make this type of work potentially more or less mentally unhealthy. The research is also non-theoretical and lacking a grounding in the broader mental health literature.

## Mental Health and Wellbeing – Key Findings

### a) Findings for the **key measures** used to assess mental health and wellbeing:

- Psychological Distress<sup>8</sup> (including feelings of anxiety and depression) scores were significantly higher for FIFO workers compared to the benchmark group, even after statistically controlling for demographic and occupational differences. Psychological distress of FIFO workers was also significantly higher than males in an Australian norm sample of 8841 individuals aged 16 and above.
- One third of FIFO workers (33%) reported experiencing “high” or “very high” psychological distress (as opposed to “low” and “moderate” levels of psychological distress). For the benchmark group, the percentage reporting high or very high psychological distress was 17%. The same figure was 10% for the norm group (see Figure 1 below).



**Figure 1.** Percentage of participants within each sample (FIFO workers, benchmark and norm group) with high or very high psychological distress scores (as measured by the K10)

- With regard to suicide risk, compared to the benchmark group, FIFO workers scored significantly worse on thwarted belonging (but not burdensomeness) and significantly worse on suicidal intent.
  - These differences are no longer significant when differences in the samples are controlled for. In other words, differences in suicide risk appear to be attributable to the fact that the FIFO worker sample is less educated and more likely to have operators/technician/trade workers - two key attributes that tend to be associated with suicidal risk.
  - Relevant norm groups were not available for comparison.
- Burnout**
- Burnout was found to be significantly higher for FIFO workers than for the benchmark group. No relevant norm group was available.

<sup>8</sup> Non-specific psychological distress was measured using the K10 (Kessler-10) which captures feelings of depression, restlessness, fatigue, worthlessness and anxiety. There are data on the probability that a person will have a diagnosis of anxiety or depression (ABS, 2012, <http://www.abs.gov.au/ausstats/abs@.nsf/lookup/4817.0.55.001Chapter92007-08>). As high K10 scores mean a greater probability for such a diagnosis, the phrase “anxiety and depression” is used interchangeably with the term psychological distress.



## Wellbeing

Wellbeing results are somewhat complex, suggesting either no differences or slightly worse general wellbeing for FIFO workers. Specifically:

- After controlling for age, education and job role, there were no significant differences between the FIFO workers and the benchmark group and a relevant norm group for psychological wellbeing (people’s feelings of self-acceptance and personal growth).
- After controlling for age, education and job role, there were no significant differences between the FIFO workers and the benchmark group on emotional wellbeing (feelings of happiness and satisfaction), although FIFO workers had worse emotional wellbeing compared to relevant norm groups.
- After controlling for age, education and job role, there were no significant differences between the FIFO workers and a relevant norm group, although compared to the benchmark, FIFO workers had worse social wellbeing (defined as having trust in a good society).

b) Findings for the **other factors** associated with mental health and wellbeing:

## Sleep / Fatigue

- Sleep quality for FIFO workers was significantly worse when compared to the benchmark group. In interviews, FIFO workers also reported being particularly fatigued when transitioning from work to home.

## Physical Pain

- After controlling for age, education and job role overall physical pain (neck, shoulders, wrists/hands, upper back and lower back) was similar to the benchmark group. In the norm group people experienced slightly more pain in the neck, shoulders and upper back than the FIFO workers, but FIFO workers had wrist/hands pain slightly more often. There was no difference for lower back pain.

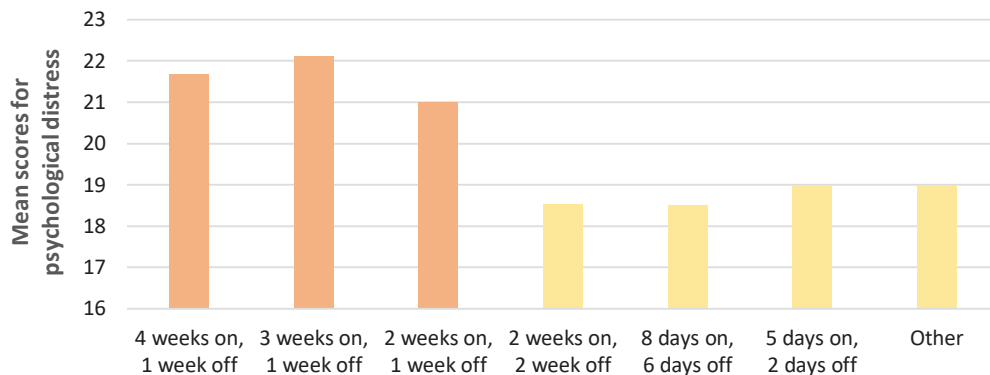
## Bullying

- FIFO workers report being bullied and witnessing bullying significantly more often than the benchmark group and the same pattern emerged when compared to the norm group. Research finds that bullying is linked to stress and mental health<sup>9</sup>.

<sup>9</sup> Hansen, Å. M., Hogh, A., Persson, R., Karlson, B., Garde, A. H., & Ørbaek, P. (2006). Bullying at work, health outcomes, and physiological stress response. *Journal of psychosomatic research*, 60(1), 63-72.

## Job Factors – Key Findings

<b>Rosters</b>	<ul style="list-style-type: none"> <li>FIFO workers on even-time and shorter rosters (i.e. 2 weeks on/2weeks off, 8 days on/6 days off, 5 days on/2 days off) reported significantly better outcomes on all mental health and wellbeing measures compared to FIFO workers on longer rosters with less time for recovery (e.g., 4 weeks on and 1 week off, 3 weeks on/1 week off, 2 weeks on/1 week off) (see Figure 2 below).</li> <li>The interview study indicated that R&amp;R needed to be of sufficient length for recovery and detachment from work, as well as to have quality time with family and friends.</li> <li>High compression rosters and travelling long distances which encroached on their limited time off added to stress and fatigue levels according to interviewees.</li> </ul>
<b>Isolation</b>	<ul style="list-style-type: none"> <li>Isolation appears to be an important influence on FIFO worker mental health. Loneliness amongst FIFO workers was significantly linked to the majority of mental health and wellbeing measures. In interviews, FIFO workers reported feeling isolated due to being separated from family and missing out on important family events.</li> </ul>
<b>Transitions</b>	<ul style="list-style-type: none"> <li>The longitudinal study and the interview study, showed that many FIFO workers felt worst when transitioning to site (e.g. sadness, anxiety, not wanting to return to work) and felt better when transitioning home (e.g. happy, excited). For many, feeling happy when returning home was dampened by fatigue.</li> </ul>
<b>Work Design</b>	<ul style="list-style-type: none"> <li>Job insecurity, high workload and lack of autonomy (i.e. low choice/control over decisions and job tasks) were all significantly associated with poorer mental health and wellbeing for FIFO workers across the majority of the measures.</li> <li>Mental health and wellbeing varied by job and employment type. These aspects were worse across all mental health and wellbeing measures for contractors, construction workers, and camp, catering and logistical staff.</li> </ul>
<b>Shifts</b>	<ul style="list-style-type: none"> <li>FIFO workers working day shifts reported significantly better mental health and wellbeing whereas when working nightshifts they reported significantly worse mental health and wellbeing across the majority of measures.</li> </ul>
<b>Team</b>	<ul style="list-style-type: none"> <li>Better mental health outcomes (majority of measures) were experienced by FIFO workers when there was support from their line managers and across all measures when there was support from co-workers.</li> </ul>



**Figure 2.** Mean scores of psychological distress for different rosters

*“Well, can we do it a different way?” And sometimes that helps. And sometimes you can actually talk with a supervisor or superintendent and go, “How about we do it this way?” [...] If you can talk to them about it, it’s usually pretty good.*



**Figure 3.** Illustrative quote from a FIFO worker about leadership and autonomy (see section 6 for the full set of themes)

## Organisational and Worksite Factors – Key Findings

Camp & Accommodation	<ul style="list-style-type: none"> <li>Workers who had a permanent room reported significantly better mental health and wellbeing compared to other accommodation arrangements. The variety of shared accommodation arrangements was not significantly linked to mental health and wellbeing.</li> <li>Some interviewees said they felt institutionalised, because of camp conditions such as poor quality of accommodation and food, unreliable internet connection, and the many rules and regimes.</li> <li>Some FIFO workers reported they found camp life lonely and felt it did not support meaningful connections, especially when there were limited opportunities for social interaction (e.g. only the wet mess).</li> <li>For the most part, the availability of recreational facilities such as gyms and pool tables was not significantly associated with the mental health and wellbeing of FIFO workers.</li> <li>For FIFO workers, the availability of recreational activities with a clear social element such as barbecues and social sports was significantly associated with better mental health and wellbeing in the survey.</li> </ul>
Culture	<ul style="list-style-type: none"> <li>If interviewees had a positive experience of the organisation, work environment, job expectations, leadership and work design they described feeling engaged, satisfied and happy at work.</li> </ul>
Stigma	<ul style="list-style-type: none"> <li>FIFO workers had significantly worse mental health and wellbeing across all measures when mental health issues were stigmatised in the workplace.</li> </ul>

## Family and Social Life Factors – Key Findings

### Financial

- Most FIFO workers and families interviewed identified the financial benefits of FIFO work compared with job and remuneration opportunities locally.
- Most interviewed were motivated to undertake a FIFO role due to the financial benefits and many had a desire to better provide for their families.
- Having a financial plan, savings, manageable debt and an exit strategy was reported in interviews to be important for the mental health and wellbeing of FIFO workers. The need for these aspects was also identified as one of the most important pieces of advice that many FIFO interviewees would give to anyone considering FIFO work.
- Job insecurity was significantly linked with poorer mental health for FIFO workers. Interviewees confirmed that the persistent threat of redundancy affected their wellbeing, and this was exacerbated when financial stress already existed for FIFO workers and families.

### Communication

- In interviews, the importance of communicating with family and friends whilst on site was identified as an important factor for mental health. In the main survey, adequate communication infrastructure such as internet (all measures) and the availability of landline telephones (majority of measures) was significantly linked to mental health and wellbeing. Mobile phones was linked to only two measures: better social wellbeing and lower psychological distress.



*“...fly-in, fly-out means you don’t create partnerships or you don’t create friends in that sort of environment. It’s actually very isolationist. So, it’s not only isolation from the partner that stays at home...it’s more isolated for the people that go up. They move you around the camp. You don’t get the same room twice... crammed quarters, long work hours, which means that by the end of that day, you don’t really make any friends. So you’re there to work and that’s all there is. So there’s no social life. There’s no interactions. It’s just so isolating for the person individually as well as being in an isolated part of the world.”*

**Figure 4.** Illustrative quote from a FIFO worker about isolation, accommodation and social connection (see section 6 for the full set of themes)

## KEQ 1b: Mental health impacts/benefits of FIFO work arrangements on families

Main findings in response to KEQ1B are drawn from the literature review, survey study, longitudinal study and interview study.

In the literature review findings were mixed, but tended towards showing more negative impacts of FIFO work on family mental health. FIFO partners in particular were identified to suffer most due to the FIFO work arrangements. Findings also suggested children and overall family functioning were affected, but to a lesser extent. This suggests that FIFO partners carry much of the burden of FIFO work, although the quality of the research reviewed means this finding should be interpreted cautiously.

Psychological Distress	<ul style="list-style-type: none"> <li>• One third of FIFO partners (33% of the partner sample) showed high or very high levels of psychological distress; this figure was the same as that obtained for FIFO workers (33% of the FIFO worker sample). This figure was more than double the percentage for females in the Australian norm group (14%).</li> <li>• FIFO partners' mental health was significantly worse when the FIFO worker experienced loneliness and conflict between work and family (difficulty balancing competing demands).</li> <li>• If the FIFO worker felt happy with their personal relationship, this was linked to the partner having significantly better emotional wellbeing (feelings of satisfaction and happiness). If FIFO workers were not happy with their personal relationships, this was linked to worse thwarted belonging and burdensomeness scores for the partner.</li> </ul>
Managing Transitions	<ul style="list-style-type: none"> <li>• Interviews suggested that transitions were difficult times. Family wellbeing and functioning was negatively impacted during the phases of the FIFO worker leaving and returning home.</li> <li>• According to many interviewees, families generally felt excited when the FIFO worker returned home from site. For the partner the benefits of the FIFO worker being home again meant sharing in the family schedule and parenting responsibilities.</li> </ul>
Managing Time Apart	<ul style="list-style-type: none"> <li>• Whilst apart, partners said they felt the demands associated with being a "de-facto single parent" and lonely and overloaded at times.</li> <li>• Partners described missing the FIFO worker greatly when apart. The separation could be quite sad, difficult and emotional for both the partner and children at times.</li> <li>• Partners also described the benefits of developing independence, resourcefulness and increased emotional resilience to manage with the FIFO lifestyle.</li> <li>• Many partners acknowledged communication challenges and difficulties accommodating and adjusting to competing needs (between the FIFO worker, partner and children) especially during the transition from site to home.</li> </ul>

FIFO Work

- 10% of the FIFO partners received an induction before the FIFO worker started FIFO employment. Receiving an induction was found to be significantly linked with the partners' psychological wellbeing, but not with other mental health and wellbeing measures.
- The financial benefits of FIFO work were described by many of the interviewees. Greater financial resources gave some partners the opportunity to stay at home to care for children or pursue other interests such as studying or establishing a business.

*"I'm the pool boy, the handyman, the cook, taxi driver and everything."*



**Figure 5.** Illustrative quote from a FIFO partner about managing time apart (see section 6 for the full set of themes)

## KEQ 2: Impact of the use of alcohol and other drugs on mental health

Main findings in response to KEQ2 are drawn from the literature review, survey study, longitudinal study and interview study.

Studies in the literature review predominantly focused on alcohol use. A slight majority of studies found that FIFO workers drink more than other workers or reported negative issues associated with alcohol use. These studies were predominantly descriptive and focused on the prevalence of alcohol use. No study suggested FIFO workers drink less than other individuals. Only one study directly tested the link between FIFO work attributes (i.e. roster, occupation group and work experience) with alcohol and other drug use.

### Alcohol – Key Findings

Risky Drinking

- 71% of FIFO workers consumed more than two standard drinks on any day on average compared to the benchmark group (43%) and the norm group (26%). Consuming more than two standard drinks on any day is considered to be a measure of lifetime risky drinking.
- 62% of FIFO workers consumed 5+ standard drinks on a single occasion at least once a month which is more than the percentage of the benchmark group (39%) and the norm group (36%, see Figure 6). This is considered to be a measure of single occasion risky drinking.
- 44% of FIFO workers consumed 11+ standard drinks on a single drinking occasion in the past 12 months which is more than the percentage of the benchmark group (22%) and the norm group (16.1%).
- The frequency of drinking for FIFO workers (10.9% daily, 57.6% at least weekly) did not differ much from the benchmark group (12.9% daily, 50.5% at least weekly).

<b>AUDIT</b>	<ul style="list-style-type: none"> <li>FIFO workers had significantly worse scores on the AUDIT (Alcohol Use Disorders Identification Test) compared to the benchmark group. The benchmark group scores were in the low-risk drinking category, whereas FIFO workers scored in the risky or hazardous category of the AUDIT.</li> </ul>
<b>Injury</b>	<ul style="list-style-type: none"> <li>17% of FIFO workers injured themselves or somebody else because of drinking which is more often than the benchmark group (8%) and the norm group (9%).</li> </ul>
<b>Influences on Drinking</b>	<ul style="list-style-type: none"> <li>More autonomy (sense of choice and control) during time off work, but whilst still on site, was linked to lower alcohol consumption.</li> <li>Happy personal relationships and the willingness to seek support was linked to lower alcohol use.</li> <li>Perceived masculinity norms<sup>10</sup>, stigma, loneliness, home- work life conflict and difficulty with the psychological transitioning to and from work were associated with riskier drinking patterns.</li> </ul>
<b>Partners &amp; Former FIFO</b>	<ul style="list-style-type: none"> <li>One third of the FIFO partner sample (33%) engaged in single occasion risky drinking (5+ standard drinks at least once a month). This is higher than the percentage of the norm group of 18+ year old Australian females (17.5%).</li> <li>33% of the FIFO partner sample engaged in single occasion risky drinking, which is fewer than the number of FIFO workers (62%) who engage in this behaviour.</li> <li>Former FIFO workers had similar drinking behaviour to FIFO workers.</li> </ul>

## SINGLE OCCASION RISKY DRINKING

≥5 standard drinks at least once per month

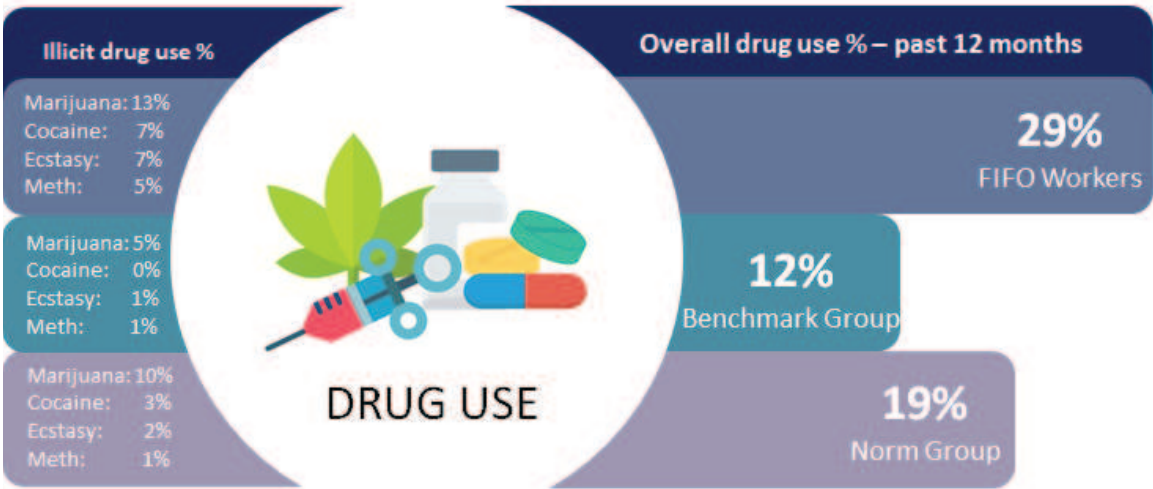


**Figure 6.** Single occasion drinking for FIFO workers in comparison with the benchmark group and the norm group

<sup>10</sup> The behaviours perceived to be normal of the traditional male gender role.

## Drugs – Key Findings

- |                              |  |
|------------------------------|--|
| <b>Substance use</b>         | <ul style="list-style-type: none"> <li>29% of FIFO workers had used drugs in the last 12 months and this percentage is higher than the benchmark group (12%) and the norm group (19%, see Figure 7).</li> <li>FIFO workers used illicit drugs, in particular marijuana, cocaine, ecstasy, and meth/amphetamines more often than the benchmark and norm groups (see Figure 7).</li> <li>Tranquilisers/sleeping pills were used by 17% of FIFO workers which is more than the percentage of the benchmark group (4%) and the norm group (2%).</li> <li>16% of FIFO workers smoked daily which is higher than the percentage of the benchmark group (10%) but similar to the norm group (15%).</li> </ul> |
| <b>Partners &amp; Former</b> | <ul style="list-style-type: none"> <li>19% of FIFO partners have used drugs in the last 12 months which is a higher percentage than the norm group (13%).</li> <li>FIFO partners' used drugs less (19%) compared with FIFO workers (29%).</li> <li>Former FIFO workers use of drugs was found to be similar to FIFO workers.</li> </ul>  |



**Figure 7.** Drug use by FIFO workers in comparison with the benchmark group and the norm group

## KEQ 3: Positive/negative strategies used by FIFO workers and their families

Main findings in response to KEQ 3 are drawn from the literature review, survey study, longitudinal study, and interview study.

The literature review found a few references to strategies used by some FIFO workers and their families. It is not clear how widespread they are used and to what extent the strategies actually work. No systematic evidence on the effectiveness of strategies employed by FIFO workers and their families to manage FIFO work arrangements can be identified from the existing literature.



## Social Connections – Key Findings

### Relationships

- FIFO workers who were happy with their personal relationships had significantly better mental health and wellbeing across all measures. Interviewees confirmed the importance of having strong, positive relationships and friendships.
- Survey findings showed the importance of having access to social activities on site; interviewees described that being pro-active and building relationships (both on and off site) was beneficial to mental health and wellbeing (majority of measures).

### Communication

- Many FIFO workers and partners said discussing and planning ahead for rest and relaxation (R&R/time at home) to ensure a balance of family, social and individual needs was important.
- Interviewees highlighted the necessity of planning regular and quality communication with partner and family whilst on site (to fit in with family schedules and children’s needs).

## Support – Key Findings

### Recalling Support

- 26% of FIFO workers could not recall any available mental health support options on site.
- FIFO workers, when recalling mental health support options available on site, mostly identified Employee Assistance Programs (EAP: 61%) and helplines (28%). They also mentioned colleagues (11.4%), counselling (11.1%) and supervisors (9.8%) as support options available on site.

### Using Support

- 60% of FIFO workers had personally used a mental health support option; mainly family and friends (34%), the EAP (22%) or a general practitioner (GP, 18%).
- 78% of FIFO partners had personally used a mental health support option; mainly family and friends (53%), a general practitioner (GP, 32%) or self-help (31%).

*“We hear a lot of stories; we’ve seen people leave the bar or the wet mess with a six-pack, and that’s every night, and you’re going, there must be a lot of problems or that’s how they’re dealing with it.”*



**Figure 8.** Illustrative quote from a FIFO worker about alcohol use (see section 6 for the full set of themes)

## Coping Strategies – Key Findings

Coping Styles	<ul style="list-style-type: none"> <li>The survey showed that FIFO workers who actively seek out support (coping style) have significantly better mental health and wellbeing (majority of measures).</li> <li>Disengaging as a coping style (giving up) was significantly negatively linked to mental health and wellbeing across all measures.</li> </ul>
Autonomy	<ul style="list-style-type: none"> <li>Autonomy during time off, on-site, had significant associations with mental health and wellbeing across the majority of measures.</li> <li>Autonomy at home and the recovery experience of FIFO workers (actions that workers take to recuperate from the demands of FIFO work) were significantly linked to mental health and wellbeing across the majority of measures.</li> </ul>
Positive Mindset	<ul style="list-style-type: none"> <li>Interviewees reported that a positive outlook or mindset, the ability to problem solve and resilience (bouncing back from challenges) were helpful in managing the FIFO lifestyle. If partners and colleagues also demonstrated these qualities it further enhanced wellbeing.</li> <li>Other positive strategies described were: reframing negative thinking, staying focussed on the present/mindfulness, goal setting and making tasks achievable, time-management strategies, gratitude practices and regular reminders of the reasons for doing FIFO.</li> </ul>
Planning	<ul style="list-style-type: none"> <li>Having a realistic understanding of the potential impact of FIFO work and the challenges before starting out, developing a plan with achievable goals (things to look forward to) and ensuring an exit strategy is in place, were all described as essential by many interviewees.</li> <li>Many Interviewees said it was important to have good financial literacy and avoid the “golden handcuffs” by keeping debt manageable and to have savings as a buffer for difficult times.</li> </ul>
Alcohol	<ul style="list-style-type: none"> <li>For FIFO workers, a significant link existed between mental health and wellbeing and alcohol, drug use and smoking. For the benchmark group, none of these links were significant. This suggests that FIFO workers might use alcohol and other drugs to cope with some of the challenges of FIFO work and many of those interviewed expressed concern about this being used as a strategy by their peers.</li> </ul>

	Positive Strategies	Negative Strategies
Planning	<ul style="list-style-type: none"> <li>- Make a plan (with partner/family) to include tenure for FIFO employment, financial goals, and exit strategy.</li> <li>- Consider (if possible) a roster and role that suits worker and family requirements.</li> <li>- Plan ahead for R&amp;R time to ensure worker and family needs are accommodated.</li> </ul>	<ul style="list-style-type: none"> <li>- No financial, contingency or exit plan and assumed job security.</li> <li>- Persisting with FIFO work arrangement when there is a significant impact on worker and/or family mental health and wellbeing.</li> <li>- No plan for R&amp;R time and negative affect on family, loss of friendships and disengaging from social activities and hobbies.</li> </ul>
Relationships	<ul style="list-style-type: none"> <li>- Whilst on site, maintain regular communication with family and friends that accommodates everyone's routines.</li> <li>- Engage in active, open, and positive communication with loved ones.</li> <li>- Recognise differing family needs and be flexible, especially with children.</li> </ul>	<ul style="list-style-type: none"> <li>- Poor understanding of each other's (FIFO worker and partner) needs and stressors when together and apart.</li> <li>- Not recognising the importance of regular and good communication for nurturing relationships with loved ones (i.e. family conflict and competing demands).</li> </ul>
Support	<ul style="list-style-type: none"> <li>- Foster relationships on site and talk to supportive colleagues and supervisors.</li> <li>- For both FIFO worker and partner, foster and maintain friendships and identify support networks in home community.</li> <li>- Support each other with family and household responsibilities during R&amp;R period.</li> <li>- Build resilience and resourcefulness to manage time apart.</li> <li>- Seek help if needed and see this as a strength not a weakness.</li> </ul>	<ul style="list-style-type: none"> <li>- Not seeking help due to organisation not being committed to mental health, stigma evident and leaders not supportive.</li> <li>- Not raising concerns due to fear of losing job and leaders with a poor management style.</li> </ul>
Health	<ul style="list-style-type: none"> <li>- When at work take regular breaks</li> <li>- Adopt healthy habits physical (exercise and nutrition) and mentally (wind down activities).</li> <li>- Ensure sufficient rest and manage fatigue during all stages of a swing.</li> </ul>	<ul style="list-style-type: none"> <li>- Disengaging from feelings and withdrawing from social networks and activities</li> <li>- Not talking about concerns and 'putting on a brave face'.</li> <li>- Using alcohol as a form of coping.</li> <li>- Accepting or 'putting-up' with work encroaching on R&amp;R time.</li> </ul>

**Figure 9.** Overview of coping strategies identified in the interview study

## Recommendations

As FIFO work is common in WA and will continue to be required into the future, it is important to direct attention towards mitigating or preventing the mental health risks associated with the FIFO work arrangements. The current research indicates there are ways in which the mental health risks associated with FIFO work arrangements can be mitigated or prevented.

Consistent with the idea that mental health is a shared responsibility between the organisation and the individual, research suggests there are steps that organisations and individual FIFO workers (and their families) can take to improve mental health.

Based on findings from this project, a large body of research across multiple industries and the expertise of the research team, it is recommended that employers and other stakeholders take active steps to mitigate against the mental health risks of FIFO work for workers and their families.

The Centre for Transformative Work Design's "Wellbeing at Work" model is used to identify three categories that employers and other stakeholders can engage in. These include the following:

- (1) **Mitigate illness.** Strategies that provide help to those employees already suffering from mental health issues.
- (2) **Prevent harm.** Strategies that build workforce capabilities and work systems that protect employees from risks to their mental health.
- (3) **Promote thriving.** Strategies that go beyond reducing mental ill health to those that promote positive wellbeing and employees who fulfil their full potential.

Within these categories, recommendations are made based on the findings of this research including those from the literature review, surveys, interviews and longitudinal study.

## Recommendations to mitigate illness

**Mitigate illness: work culture and mental health framework.** The FIFO workers and their partners in this research experienced poorer mental health compared to the benchmark group and norms. It is therefore important to ensure that poor mental health is identified and effectively supported. Benefits of mitigating mental ill-health problems include: reducing instances of illness, injury or disease amongst FIFO workers, as well as reducing organisational costs such as those associated with absenteeism, turnover and workers' compensation claims.

This research highlighted the importance of having an overall supportive climate in which employees are respected and their mental health and wellbeing is taken seriously. The survey showed that, when the organisation was considered to place a high priority on employee health and safety, this is associated with better mental health.

Workplace mental health is a relatively new focus for organisations and requires specialist training, knowledge and skills. It is cross-disciplinary and the expertise could be drawn from organisational or health and safety specialists, human resources, nurses, social work or psychology.

### Recommendation 1: Develop a culture that prioritises mental health

Organisations and leaders should demonstrate genuine commitment to improving the mental health of their workforce.

- Develop an overarching and integrated mental health framework linked to all aspects of the organisation's values, policies and procedures. This needs to be embedded in the workplace culture.
- Engage/employ/train skilled specialists in workplace mental health and wellbeing who are equipped to implement a mental health framework.
- Mental health should be given the same status and resources as other aspects of occupational health and safety.
- Engage employees at all levels to contribute and share in the responsibility for mental health and wellbeing within the workplace and camp accommodation.

**Mitigate illness: legal responsibilities and psychosocial risks.** Efforts to reduce mental health risks and to improve worker mental health are also consistent with OSH laws; the principal OSH law in being is the Occupational Safety and Health Act 1984 (WA), supported by the Occupational Safety and Health Regulations 1996 (WA). According to these regulations, *"duty-holders must ensure, as far as is*

*practicable, that they are not exposing people to health and safety risks arising from the work”* (with health including **mental** and physical health). Part of the Model work health and safety act includes: “that the health of workers and the conditions of the workplace are monitored to prevent injury or illness arising out of the conduct of the business or undertaking”.

In recent times, litigation cases in other industries, such as emergency services, highlight the legal responsibilities of employers to address psychosocial risk factors. Compensation claims due to mental health issues are also rising.

It must be acknowledged that, regardless of causality, the FIFO workforce experiences higher levels of psychological distress and is vulnerable to suicide. Failure to address this issue leaves the sector open to litigation, as has been the case in other industries and professions. The lens of mental health and wellbeing should be applied across all areas of the business to establish the work-related risks in line with the findings from this research.

All types of work have the potential for positive and negative impacts on mental health, and FIFO work is no exception. The known psychosocial risk factors<sup>11</sup> include:

- Excessive work demands (emotional, mental, physical)
- Low Control
- Poor support
- Lack of role clarity
- Poorly managed change
- Poorly managed relationships
- Low levels of recognition and reward
- Organisational injustice

### **Recommendation 2: Assess psychosocial risks and monitor the mental health of FIFO workers and the factors that affect their mental health**

- Use psychometrically valid tools to assess the mental health of FIFO workers as well as the psychosocial risks (including FIFO-specific risks) that affect mental health.
- Benchmark and track FIFO worker mental health and psychosocial risks over time.
- Ensure the implementation and the process of any assessments are well designed such that workers feel safe to be honest and report risks without repercussions.
- Design interventions based on the assessed risks, and evaluate the interventions to assess their effectiveness.

**Mitigate illness: leadership.** A key finding was that leaders play a pivotal role in relation to worker mental health. The interviews suggested that supportive direct line supervisors were positive for FIFO worker mental health, whereas poor management skills had a negative impact. It is therefore vital that direct line managers have the skills and capabilities to create a positive work culture in which bullying is not accepted, it is possible to discuss mental health openly, and emotional and job support is provided. A positive work culture has a flow-on effect in terms of the recruitment, engagement and

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<sup>11</sup> Safe Work Australia (2014). Preventing psychological injury under work health and safety laws Fact Sheet. Retrieved from <https://www.safeworkaustralia.gov.au/system/files/documents/1702/preventing-psychological-injury-under-whs-laws.pdf>

retention of staff (employer of choice) and business costs (turnover, sickness, compensation claims and production outcomes).

### **Recommendation 3: Provide mental health training for direct line managers**

- Managers and front-line supervisors should be trained to understand mental health, to be able to identify the factors that affect worker mental health, and to provide appropriate support.
- Leaders should be recruited and promoted for their abilities to create a positive work culture and demonstrated people-management skills such as respect, trust building, problem solving, conflict resolution and empathy.
- Training, coaching and supervision of leaders to build their knowledge and skills should be prioritised by the organisation.
- There should be recognition of the time managers require to prevent and manage mental health issues.

**Mitigate illness: stigma.** Stigma and masculine norms were found to be significant factors that prevented FIFO workers from seeking help. Prejudice, discrimination and ignorance underpin stigma; therefore, education and initiatives that promote a culture of psychological safety are important to address these behaviours and attitudes. Stories and experiences from a diverse range of people who have experienced and overcome mental health challenges is one of the best ways to address stigma and break down masculine norms.

### **Recommendation 4: Address the stigma associated with mental health**

- Organisations should strive to reduce the stigma related to mental health and monitor the effectiveness of anti-stigma interventions.
- Educate workers to recognise and understand mental health issues.
- Ensure regular opportunities to reinforce and challenge misconceptions and myths regarding mental health, such as during toolbox talks and return-to-work meetings.
- Establish a supportive environment in which people feel safe to share their experiences and ask for help.
- Encourage leaders to talk about their mental health, as this has been found to be particularly positive in addressing stigma in the workplace.

**Mitigate illness: support services.** FIFO workers and partners were aware of only a few support options, mainly the organisation's Employee Assistance Provider (EAP). Helplines were mentioned by less than a third, which is low given how broadly Lifeline, Beyond Blue and Suicide Call Back are communicated. Helplines have been shown to be effective in engaging individuals at serious risk of suicide and in reducing suicide risk among callers. Helplines are anonymous and address the concern that some people don't trust the confidentiality of EAP.

Industry, government and other relevant stakeholders should go beyond a one-size-fits-all approach and ensure that support options suit the constraints of FIFO work and the demographics of FIFO workers.

### Recommendation 5: Educate and promote a broad range of support services

- Call numbers for EAP and helplines should be visible and readily available to all employees in the workplace and in the camp accommodation.
- Emergency 24/7 site contact number/persons should be available for workers and family.
- Ensure workers and family members have information about the organisation's EAP services including that sessions are no-cost and confidential.
- Organisations should raise awareness of a broad range of support options that are relevant and accessible for FIFO workers and their families, including: EAP, helplines, GP/Medicare mental health plans, private health fund provisions and other wellbeing programs, government and community services, e-mental health support, online resources and credible, evidence-based mobile phone apps.
- Information about available support should be promoted via different mediums and across the employment life cycle.

**Mitigate illness: mental health emergencies.** FIFO workers scored slightly worse on thwarted belonging (but not burdensomeness) and suicidal intent when compared to the benchmark group. These differences were mainly attributable to their education and job role.

Suicide-related outcomes in the study might be amplified when multiple factors are considered together. For example, the combination of riskier alcohol use and poor mental health is a concern because these factors influence suicidal thoughts and behaviours<sup>12</sup>. Further, thwarted belonging is shown to be related to a lack of social support and feelings of loneliness<sup>13</sup>, as loneliness (and happiness with relationships) was related to all mental health and wellbeing outcomes in this study, including suicidal intent.

The research suggests that FIFO workers have riskier alcohol and other drug use compared to the benchmark and norm group. The research shows a significant relationship between substance use (alcohol and other drugs) and poor mental health and wellbeing in FIFO workers (this link was not found in the benchmark group). This suggests that alcohol and other drug use might be a coping strategy for mental health issues.

The high levels of other work-related risk factors such as bullying and fatigue, as well as individual factors such as poor coping style, relationship and financial stress, show a complex picture in which many factors impact mental health. Therefore, organisations need to plan for, and respond to, critical incidents and mental ill-health in a safe and supportive way.

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<sup>12</sup> Wilcox, H. C., Conner, K. R., & Caine, E. D. (2004). Association of alcohol and drug use disorders and completed suicide: an empirical review of cohort studies. *Drug and alcohol dependence*, 76, S11–S19. doi: 10.1016/j.drugalcdep.2004.08.003. Slade, T., Johnston, A., Teesson, M., Whiteford, H., Burgess, P., Pirkis, J., Saw, S. (2009). The Mental Health of Australians 2. Report on the 2007 National Survey of Mental Health and Wellbeing. Department of Health and Ageing, Canberra.

<sup>13</sup> Van Orden, K. A., Cukrowicz, K. C., Witte, T. K., & Joiner, T. E. (2012). Thwarted belongingness and perceived burdensomeness: Construct validity and psychometric properties of the Interpersonal Needs Questionnaire. *Psychological Assessment*, 24, 197–215. doi: <http://dx.doi.org/10.1037/a0025358>

### **Recommendation 6: Ensure strategies, policies and procedures are in place to manage mental health emergencies and injury**

- Develop a suicide prevention plan and site (workplace and camp) evacuation policy for mental health emergencies.
- Ensure return-to-work and injury-management policies include employees experiencing mental ill-health and support strategies to return to work at the earliest opportunity.
- Ensure there are anti-bullying, alcohol and other drug, and fatigue management policies that recognise the interrelationship of these factors and their relationship with mental health.
- Implement workplace support programs with a proven track record and that are evidence based (e.g. employees trained in mental health first aid for on-site peer support).
- Ensure key personnel are trained appropriately to respond to mental health emergencies.

## **Recommendations to prevent harm (poor mental health)**

**Prevent harm: mental health awareness.** As well as ensuring that signs of mental ill-health are identified and that support is given, it is crucial to take steps to prevent the emergence of mental ill-health. This recommendation is consistent with Work Health and Safety regulations to “prevent exposure to hazards”.

Improving the mental health literacy of all FIFO workers and their understanding of the range of factors that can impact mental health (e.g. alcohol, bullying, fatigue) and inform them about strategies to support wellbeing ensures the individual is better equipped to take responsibility for their own mental health. The findings demonstrated that active coping styles (e.g. seeking support) are better for mental health.

### **Recommendation 7: Increase mental health literacy through information and training for all workers**

Educate and provide training to FIFO workers to enhance their understanding of mental health and associated factors, and strategies to support wellbeing, including:

- Mental health awareness across the spectrum of wellbeing.
- Alcohol and other drugs education to encourage alternatives to and the effective management of alcohol use, tranquilisers and sleeping pills.
- Anti-bullying and supportive workplace practices that address masculine norms.
- Fatigue management, which promotes good sleep hygiene practices and reduces workers’ reliance on alcohol and pharmaceutical interventions.
- Positive and active coping styles and self-care to support mental health and “fitness for work”, including seeking help.



**Prevent harm: preparation and education for FIFO workers and families.** FIFO workers in the interviews identified that it was important for new workers to do their due-diligence regarding the lifestyle prior to entering into the role and for them to be provided with information, strategies and tips to make FIFO work well.

The findings from the research showed that the psychological transitioning between work and home is associated with the mental health and wellbeing of FIFO workers. Returning back to site was found to be the most challenging transition phase and settling back into life at home also required a level of adjustment for both the FIFO worker and family.

The interview study showed that during their time on-site, the perceptions of FIFO workers and their partners differed in respect to the mental health and wellbeing of the FIFO worker. This could be due to a lack of understanding or communication difficulties or the adoption of a “brave face” to avoid worrying or burdening their partner.

Interviewees were, in general, making the FIFO lifestyle work well. FIFO workers and partners described many positive strategies to mitigate poor mental health (e.g. goal setting, reframing negative thinking, focusing on the present, reminding oneself of the reasons for doing FIFO, and individual and family rituals to help prepare for transitions). Findings also demonstrated that an active coping style and/or seeking support are better for mental health.

#### **Recommendation 8: Prepare and educate FIFO workers and their families for FIFO work**

- FIFO workers and partners should receive information about the benefits and challenges of a FIFO role and lifestyle prior to employment so they can make informed choices.
- Comprehensive inductions, education and ongoing training which support FIFO workers and partners to navigate the FIFO lifestyle could include:
  - Strategies to plan and manage FIFO for all family members, including children, for example, when missing important family events.
  - Educating workers and their families on common issues they may face, coping strategies and how to best to support each other.
  - Educating and assisting FIFO workers and partners to better understand and manage the transitions between FIFO and home life, as this is when many experience poor levels of mental health (return to site), fatigue and competing needs (return home).
  - Building skills for effective communication and strong relationships.
  - Tips and ideas from other FIFO families who make the lifestyle work well.
  - Financial literacy, budgeting and planning.
  - Planning for economic and life events across the employment lifecycle, including redundancy, retirement and career changes.

**Prevent harm: communication.** Communication with family is an important protective factor for mental health and wellbeing. Both the survey and interview studies revealed there was anxiety associated with the inability or limitations to connect with family and friends when on site. FIFO

workers need to have a reliable means to contact home when in camp, as well as the flexibility when at work during times of critical need. Good communication and technology infrastructure is essential.

#### **Recommendation 9: Provide reliable communication options and foster connections with home**

- Telephone and internet infrastructure should be adequate to ensure workers can stay connected to their family and social networks, especially at times of high demand.
- Organisations should foster an environment which recognises the importance of family and the challenges of separation and missing out on important events.
- Organisations should provide some flexibility for workers to be in contact with family members during work hours when there are extenuating circumstances.
- Provide a dedicated contact point or individual on site for family to contact in time-critical and highly important situations.
- Ensure FIFO workers are able to call 24/7 emergency helplines from their accommodation.

**Prevent harm: support for family.** The research found that partners of FIFO workers also experience higher levels of psychological distress than relevant norm groups and that this is partly associated with FIFO work arrangements. If the worker experienced job satisfaction and good social connections, then the partner had better mental health. Aspects of family stress could be alleviated by implementing many of the recommendations, as well as targeted initiatives that enhance family wellbeing.

#### **Recommendation 10: Implement initiatives that support FIFO partners and families**

- Organise family days, site visits and initiatives for partners and families to learn more about the FIFO worker's experience.
- Establish or link families, especially those new to FIFO, with support groups, mentors or buddy systems.
- Provide an on-site contact or "family liaison" person that partners can contact in an emergency or for advice.
- Develop resources to capture stories of how families make FIFO work well, useful services, tips and common problem-solving ideas.

**Prevent harm: rosters.** The research found that workers on different rosters and shifts had different levels of mental health. FIFO workers on rosters of 4 weeks on/1 week off, 3 weeks on/1 week off and 2 weeks on/1 week off had higher levels of psychological distress than those on other rosters.

The interview study suggested that having enough time off is important for recovery and quality time with family and friends (particularly after being away for weeks at a time). Travel in own time, long travel distances encroaching on R&R and returning home very fatigued were all raised by interviewees as issues that impacted wellbeing. The shift type was also found to impact mental health. Working night shifts is associated with worse mental health and wellbeing.

The data from this research lends itself to better determine optimal roster and shift structures, however this was beyond the scope of this study. Implications for increased business costs should be weighed against a healthier and happier workforce, reducing other costs and improving productivity.

### **Recommendation 11: Implement rosters and shift structures that optimise mental health and wellbeing**

- Organisations should strive for even-time and shorter roster schedules.
- Risk assessments of transitions; travel to and from site and day-to-night shift changes should be undertaken to ascertain the impact on mental health and fatigue and potential for improvement.
- Options to move or be housed in the regional, local township should be considered and offered where possible.
- Organisations should investigate the wellbeing and health consequences of various work arrangements (e.g. days for a swing, nights for a swing versus dividing one swing into days and nights).
- Prepare and educate workers to manage these arrangements and optimise health (e.g. lighting and sleep hygiene) and provide adequate recovery time between day and night shift transitions.

**Prevent harm: job factors.** Factors that influenced the mental health and wellbeing of FIFO workers included different job and employment contracts, job insecurity, high workload and low levels of autonomy. Staff working in catering, camps and logistics, and those in construction or employed by contractors were found to have the poorest mental health.

### **Recommendation 12: Identify and monitor the impact of job roles, work design, workloads and employment contracts on mental health**

- Identify and address the work design, cultural and other work factors that increase the vulnerability of certain job roles to poor wellbeing (i.e. employees in camps and catering, construction and workers employed by contractors).
- Proactively monitor workloads and other psychosocial risks in order to identify and address any individuals or roles that are overloaded.
- Make adjustments such as additional staff, job rotation, training or increased autonomy, with the specific adjustments depending on the specific psychosocial risks identified in a job.
- Organisations should ensure contracted companies and labour hire meet the same standards and protections (e.g. rosters, EAP) as those in place for their own employees.

**Prevent harm: camp and community.** Survey results showed the availability of social events on site were found to positively influence mental health and wellbeing, whereas the availability of recreational activities such as the gym and pool did not have significant links. Social isolation and loneliness both on site and at home were related to poorer mental health.

Some interviewees stated that good friends and team mates eased the transition back to site. Others said the wet mess was the only option for socialising while on site, which likely encouraged drinking and riskier habits. The research findings suggest value in creating a strong sense of community at accommodation villages and providing opportunities for building relationships and social interaction.

This promotes health and wellbeing, recovery from work, social connection and an increased sense of choice and control.

### **Recommendation 13: Build community and social connections**

- Organisations should offer and promote a range of different activities on camps and accommodation sites that are social in nature and which cater to different interests (e.g. sporting activities, BBQs, games and quizzes, special interest clubs, music and entertainment events).
- Workers should be engaged in identifying, or take responsibility for organising, activities and events.
- Community engagement or activity officers could be employed or the role of lifestyle coordinators extended to enhance community and social aspects of accommodation villages.
- Villages should be designed to ensure there are a range of physical spaces for social activities and opportunities for interaction besides the wet mess.
- Contact and integration with local communities should be facilitated where possible, ensuring positive benefits for all.

**Prevent harm: camp regulations.** Greater autonomy whilst on camp was found to be associated with better mental health and less consumption of alcohol. Many interviewees referred to unnecessary rules and regulations in accommodation villages, restrictions to leaving camp or accessing the townships, being “fenced in” and under surveillance, dictating of meal times, sleep times, inflexible mess opening hours and dress codes during time off on camp. Whilst it is recognised that some of these practices may have arisen as an effort to protect workers, they can have the effect of making the FIFO camp experience like that of an “institution”, as described by many interviewees.

### **Recommendation 14: Review FIFO camp rules and regulations, and assess the impact on mental health**

- Where possible, provide a greater level of autonomy for FIFO workers during time off on-site.
- Test the necessity of “rules” against the impact they have on FIFO worker mental health and wellbeing.
- Encourage trust, respect and responsibility and give workers an opportunity to relax and experience their time off in a positive way.

**Prevent harm: camp accommodation.** The research found a correlation between better mental health and permanent rooms. It is likely this is associated with a greater sense of belonging and community. It also enables workers to individualise their room and leave personal items, and is more akin to private accommodation.

### **Recommendation 15: Provide a permanent room at accommodation sites**

- Organisations should enable workers to remain in the same “permanent” accommodation space where possible.
- Encourage a sense of security, place and belonging.

**Prevent harm: finance.** Job insecurity was associated with poorer mental health outcomes. This contributes to workers (and partners) feeling stressed about their future and income. For many interviewed, the motivation and benefits of FIFO work were financial, and were embedded in the desire to provide a better lifestyle and opportunities for their family. Sometimes, the prolonged uncertainty about potential job loss and the disruption to the workplace caused by ongoing redundancies during an economic downturn was a major stressor. This was particularly the case if the worker had substantial debt, no savings and limited alternative employment options.

### **Recommendation 16: Recognise the mental health risks of financial stress and job insecurity**

- Organisations should put strategies in place to maximise permanent employment and minimise or ease job insecurity if experienced by workers.
- Educate and prepare workers for the economic cycle prior to employment and at inductions.
- Improve financial literacy through education.
- Promote discussion of career pathways as part of the supervision and performance management process.
- Keep workers informed of organisational change, job losses, contract renewal and future work opportunities within the organisation.
- Support workers to obtain alternative employment following end-of-contract through outplacement and recruitment agents, and provide avenues for upskilling.
- Manage redundancy processes, recognising the mental health impacts on the employee who is losing their job, and those involved with the decisions and implementation of redundancies, as well as the disruption to teams through the loss of colleagues and increased workloads.

## **Recommendations to promote thriving and positive mental health**

**Promote thriving: positive mental health.** A healthy worker (absence of illness and injury), includes a worker being healthy and experiencing wellbeing across mental, physical and social dimensions. For example, a healthy FIFO worker would be physically healthy (e.g. in a healthy weight range, and free of injury), mentally/emotionally healthy (e.g. not suicidal, engaged in his or her work and confident), and socially healthy (e.g. not isolated, having supportive friends and family, feeling part of a community).

The concept of thriving or flourishing involves initiatives to enhance **positive** mental health and wellbeing. Just as physical health is more than the absence of illness and disease (for example, physical health includes good cardiovascular functioning and fitness), mental health is more than just the absence of anxiety, depression and stress. Positive mental health includes, for example: wellbeing, feelings of competence and worth, and engagement. Strategies for promoting thriving include, for example, high performance work designs, transformational leadership styles and strengths-based development. The benefits of promoting thriving include increases to employee engagement and proactivity and, thereby, increases to organisational innovation and productivity.

Although the focus of the current research was not on thriving, we note the potential for interventions which promote FIFO workers' wellbeing and capacity to flourish.

#### **Recommendation 17: Identify and implement strategies and interventions to enable FIFO workers to thrive**

This could include promotion of:

- High performance work design
- Meaningful work
- High quality connections
- Transformational leadership

### **Recommendations for additional research**

Additional data analysis of the existing research could address some issues that were beyond the scope of this project. Further research could also be undertaken. One useful research strategy could be to follow up and track FIFO workers in the current sample over time to ask the question "how are things changing, for whom, and why?". If there are improvements in some workers' mental health relative to now, then the causes could be identified (e.g. changes to roster, permanent accommodation, mental health awareness training, place making and social activities on camp). This research could be done across the broad participant cohort or could also be undertaken for individual companies or sites.

The data presented in the current research could be used to carry out utility analyses to assess the economic and social value of mental-health-orientated interventions relative to the investment cost. Such analyses can be helpful for motivating employers and other relevant stakeholders to prioritise such interventions.

#### **Recommendation 18: Identify and prioritise further research**

Options could include:

- Expanded analyses of the data collected in this research.
- Conduct a follow-up study, including as many as possible of the existing study participants as a cost-effective way of reviewing progress for FIFO workers as a whole and as a powerful way to establish the impact of interventions.
- Conduct utility analyses to demonstrate the economic and social value of interventions to improve FIFO worker and family mental health.