NSW MINERALS COUNCIL

MENTAL HEALTH AND THE NSW MINERALS INDUSTRY

PREPARED FOR THE NSW MINERALS COUNCIL BY

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EXECUTIVE SUMMARY

Mental health enables individuals to function productively and fruitfully in all aspects of life, hence is the foundation for well-being for individuals and the community. Mental Illness is a common medical condition potentially affecting 20% of the community in any 12 month period.

MENTAL ILLNESS IS COMMON, WITH 20% OF THE COMMUNITY EXPERIENCING ONE OF THE COMMON MENTAL ILLNESSES IN THE LAST 12 MONTHS

There are a range of protective and risk factors for mental health and mental illness. Current physical health, social factors such as strong family and community support, and current and past life experiences can all play a role. Supportive employment and its contribution to financial security is a protective factor for mental illness. Drug and alcohol abuse, lack of social connections and chronic illness are risk factors for developing a mental illness.

There is very limited evidence on the extent of mental illness in the NSW Minerals Industry. However, based on known risk factors and studies in other workplaces, mental illnesses are likely to be common in the NSW Minerals industry. Mental illness affects all ages, peaking in the working years and affects all employment categories. It is likely that between 8,000 and 10,000 people have experienced one of the common mental illnesses in any 12 month period in the NSW Minerals industry across all employment categories.

BETWEEN 8,000 AND 10,000 PEOPLE EXPERIENCED ONE OF THE COMMON MENTAL ILLNESSES IN A 12 MONTH PERIOD IN THE NSW MINERALS INDUSTRY ACROSS ALL EMPLOYMENT CATEGORIES

Treatment for the common mental illnesses is effective. However, only about 35% of people with one of the common mental illnesses access care. The stigma associated with having a mental illness along with the effects of conditions themselves can erode confidence in seeking help. The lack of awareness of common mental illnesses, and sometimes the "the macho culture" can be significant barriers to obtaining the care and advice needed to return to full health. A supportive environment in the workplace can help address this problem.

TREATMENT IS EFFECTIVE AND EFFECTS OF NON-TREATMENT ON WORKPLACE PRODUCTIVITY ARE SIGNIFICANT

The costs to the community and industry in Australia are significant with estimates of $AU2.6 billion per annum in lost productivity attributable to mental illness. When mental illness is averted or successfully treated it is estimated it has the largest positive impact on labour force participation.

Absenteeism due to mental illness is estimated to account for 35-45% of all absenteeism.Presenteeism (less than optimal productivity while at work) is estimated to account for 18 days per annum per employee with a mental illness. In addition those with a mental illness are at increased risk of injury.

Overall estimates indicate that the costs attributable to mental illness in the NSW Minerals Industry are $AU320 million to $AU450 million per annum. In a mine of 170 employees estimates indicate that the costs to the mine attributable to mental illness are between $AU300,000 and $AU400,000 per annum.

COSTS TO THE NSW MINERALS INDUSTRY ATTRIBUTABLE TO MENTAL ILLNESS ARE $AU320 MILLION TO $AU450 MILLION PER ANNUM

While strategies to address mental illness and mental health problems in mining have to date been limited, there is evidence from other settings that workplaces are important places to address mental health and mental illness. There is no singular solution; rather there is a need for a comprehensive and integrated approach across different aspects of the problem i.e. preventing mental illness and mental health problems, identifying them early, and supporting people who are experiencing a mental illness in the workplace to achieve full recovery at work where possible.

A "top down" approach is necessary to provide leadership in addressing mental health and well-being and mental illness in the industry. Similar approaches have been undertaken in other settings. For example the NSW Farmers Blueprint for Mental Health is an industry led strategy that grew from the recognition of unaddressed mental health needs of this sector, and the importance of a multi-pronged approach. Adopting such a comprehensive approach would place the NSW Minerals Industry at the forefront of mining in addressing mental health and mental illness.

A COMPREHENSIVE AND INTEGRATED APPROACH IS RECOMMENDED FOR ADDRESSING MENTAL HEALTH AND MENTAL ILLNESS IN THE NSW MINERALS INDUSTRY

Based on the findings in this report it is recommended that:

1. That the NSW Minerals Council commits to the principles and aims outlined in this chapter and apply these in the development of future strategies.
2. That the Executives of the NSW Minerals Industry commit to reviewing, and where needed developing, policies and procedures which support comprehensive and integrated approaches to improving mental health and well-being and supporting people with mental health problems and mental illnesses.
3. A 'Roadmap for Mental Health" is developed to provide a plan and related timeline for a defined set of priority actions aimed at improving the mental health and well-being within the NSW Minerals Industry to include.
    a. Promoting mental health and well-being through
        i. the development and implementation of a mental health literacy program tailored to the NSW Minerals Industry, and to different categories of employees for implementation in mines
        ii. the development and implementation of comprehensive programs to address protective and risk factors for mental health and mental illness
        iii. the development of a strategy to reduce stigma of mental health problems and mental illness among all levels of the workforce
        iv. steps to assist family and community functioning through promoting social networks and family support for employees
    b. Supporting people with a mental illness through
        i. the development of a policy and protocol framework to support the people with a mental illness in the industry
        ii. the development of "pathways to care and advice for mental health problems and mental illnesses" which includes approaches for return to work
        iii. development of a training program for supervisors in the recognition of mental health problems and mental illnesses in the context of performance, supported by effective communication skills and appropriate referral
        iv. a planned implementation of Mental Health First Aid training for current holders of general first aid certificates
        v. specialist support and advice to existing health service providers to ensure provision of effective and responsive mental health care for all levels of need
        vi. development of protocols to support employees in the event of stressful workplace events
4. The formulation of the 'Roadmap" be initiated by a workshop of representatives from stakeholder organisations and health advisors to ensure the actions reflect the industry priorities and the strategies are tailored to best fit the environment and target groups.
5. The subsequent implementation and evaluation of the Roadmap should be overseen by an industry led working group comprising industry representatives and leaders, and relevant health service providers and researchers to assist in guiding implementation and evaluation.
6. A research and evaluation strategy that addresses current evidence gaps as identified through Roadmap workshops, and that provides a firm basis for robust evaluation of interventions arising from the Roadmap strategy.

27th April 2012

1. INTRODUCTION

Mental health is an essential component of good health. Being mentally healthy enables individuals to function well in life and at work. Mental illness and mental health problems can affect an individual's capacity to work productively, their physical health and their risk of injury. In this way poor mental health impacts on workplaces through increased absenteeism, less than optimal productivity while at work (presenteeism), and increased work place injury. It can also have an adverse effect on work colleagues, family members and the community.

Work is an important part of people's lives, and while mental illnesses, like many other forms of illness, have a range of causes, the workplace is often the place where problems can become evident, or where the effects of a mental illness or mental health problem are first identified. Hence the workplace presents a key setting for early detection and effective response, and also for support.

As with other illnesses, the nature of work practices can exacerbate symptoms or provide support to a person with illness to return to full recovery. Thus workplaces have the potential to have both a positive and negative influence mental health and wellbeing

1.1 AIM OF THIS PAPER

This paper aims to describe the concepts of mental health and mental illness, and place these in the context of the NSW Minerals Industry. The extent and impact of mental health problems and mental illness on individuals, the community, the workplace and in particular the NSW Minerals Industry are discussed. Strategies to promote mental health and well-being prevent mental illness and also support people with mental illness in the context of the workplace are described. In doing this, this report aims to set the scene for assisting the NSW Minerals Industry to recognise mental health and mental illness in the context of work, and collaborate with employees and communities to support optimal mental health and well-being.

1.2 METHODS

This paper was developed as a result of reviewing the literature in peer reviewed journals and reports from relevant organisations. The literature review focused on evidence about the status of and strategies to address mental health and mental illness in the general community and in workplace settings. This was complemented by interviews with stakeholders in the mining industry including managers, occupational health and safety experts and union representatives.

1.3 THE NSW MINERALS INDUSTRY

Mining brings some significant economic and employment benefits to communities. The NSW minerals industry contributes more than $2 billion annually in taxes and royalties.[1] It is estimated that 80,000 are employed directly in mining with a further 250,000 employed indirectly associated with supply and services industries.[2] The value of mineral production in NSW for 2010-11 was an estimated $20 billion.[1] In NSW, employment in mining has increased annually over the last five years (Figure 1).

In NSW 55% of employment in mining in 2011 was in coal.[2] The NSW Minerals Industry operates in communities in the Hunter, Illawarra, Gunnedah, Central and Far West.[2] In addition to coal, other minerals include gold, copper, lead, zinc, silver and industrial and construction minerals

FIGURE 1: TOTAL NUMBERS OF PEOPLE EMPLOYED (F/T AND P/T) IN MINING IN NSW EACH QUARTER – 2007-2011

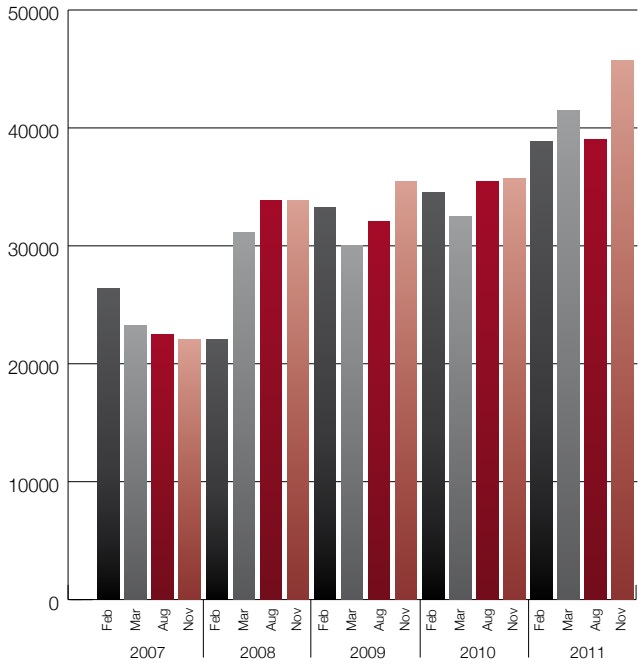
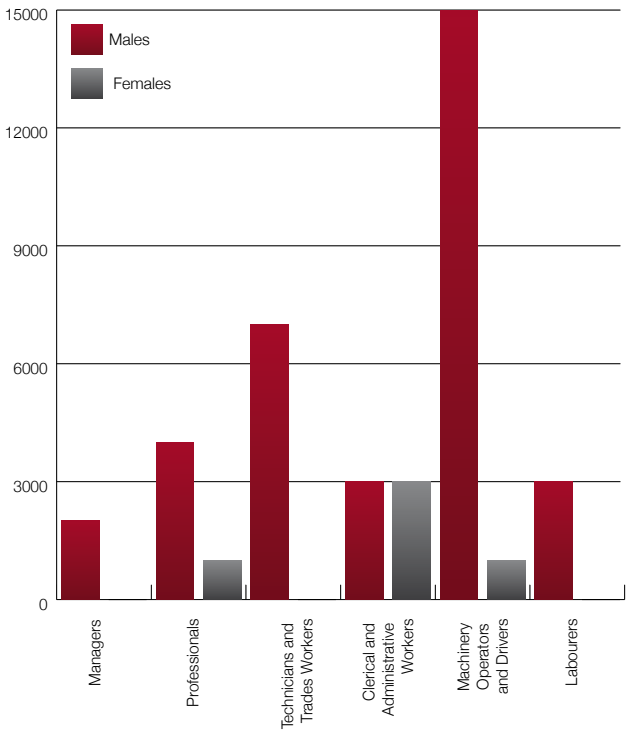


FIGURE 2: TOTAL NUMBERS OF PEOPLE (F/T AND P/T) IN EACH CATEGORY OF EMPLOYMENT IN MINING IN NSW – AUGUST QUARTER



In the final quarter of 2011 there were 45,700 people employed (full time and part time) in mining in NSW. The average quarterly full time employment for 2011 was 41,264 people. These data exclude contractors.

As an example, the August quarter 2011 data are used to describe the breakdown in employment categories for mining in NSW (Figure 2). In this quarter there were 39,000 employed either full or part time in mining in NSW.

Machinery operators and drivers represent the largest category of employment within the mining industry with 15,000 men and 1,000 women employed in the August 2011 quarter. Technicians and trades were the next highest numbers employed with 7000 all of whom were male. Together these two categories represented 59% of the total mining workforce in NSW. The highest numbers of females in the industry were in the clerical and administrative workers category with 3000 employed.

2. WHAT IS MENTAL HEALTH AND MENTAL ILLNESS?

KEY MESSAGES

- Mental health enables individuals to function productively and fruitfully in all aspects of life
- Common mental illnesses are anxiety, mood disorders (e.g. depression) and substance use disorders

Mental Health is a state of well-being in which the individual realises his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community.[3] As such it is the foundation for well-being for an individual and the community.[4]

A mental Illness is a clinically diagnosable medical condition which describes a range of behavioural and psychological conditions, with the most common illnesses being anxiety, mood disorders such as depression, and substance use disorders.[5] The less common mental illnesses include schizophrenia,bipolar disorder and other psychoses, and a range of other conditions such as eating disorders, and severe personality disorder.[5] While the common mental illnesses are experienced by 20% of the population in any 12 month period, it is estimated that 2-3% are affected by the less common mental illnesses such as schizophrenia and bipolar disorder with less than 1% experiencing a psychotic illness.[5]

People can experience a level of cognitive, emotional, behavioural and social problems that do not meet the criteria for a diagnosed mental illness. These mental health problems will often resolve with time or when life stressors change. However, if mental health problems persist or increase in severity they may develop into a mental illness. Examples of mental health problems would be the sadness and despair associated with grief and loss and family breakdown, and the symptoms associated with unbearable stress.

Most people with a mental illness will recover fully especially if identified and treated early. Some people may have only one episode of mental illness and recover fully while others may experience episodes of mental illness occasionally, with years of wellness between episodes. Though some people experience significant and prolonged disability as a result of a mental illness, many go on to live full and productive lives even while receiving ongoing treatment.[6]

2.1 COMMON MENTAL ILLNESSES

DEPRESSION

Depression is the most common of the mood disorders. While feelings of sadness or being "low" are common, they usually do not persist. Depression is characterised by intense feelings of sadness and moodiness which persist for some time. Common behaviours associated with depression are described in Table 1.

The behaviours associated with depression vary across individuals. While some of these may be common, if frequent, prolonged or intense they may indicate the presence of a depressive disorder.

TABLE 1: BEHAVIOURS ASSOCIATED WITH DEPRESSION INDICATORS

- moodiness that is out of character
- increased irritability and frustration
- finding it hard to take minor personal criticisms
- spending less time with friends and family
- loss of interest in food, sex, exercise or other pleasurable activities
- being awake throughout the night
- increased alcohol and drug use
- staying home from work or school
- increased physical health complaints like fatigue or pain
- being reckless or taking unnecessary risks (e.g. driving fast or dangerously)
- slowing down of thoughts and actions

ANXIETY DISORDERS

It is normal for people to feel anxious from time to time, either in anticipation of a hoped-for positive outcome from our endeavours (for example a wedding day, or starting school), or in response to a threat to our health and wellbeing (for example walking in the dark late at night). Normal anxiety is intermittent and usually related to a specific event. Such anxiety is very helpful. Anxiety becomes a problem when it is ongoing, irrational, or disproportionately extreme. Such anxiety can interfere with a person's quality of life and ability to function well.

There are many types of anxiety disorders with people commonly experiencing the symptoms of more than one type. These include disorders referred to as generalised anxiety disorder, phobias (referring to excessive fears of specific situations) and Post-Traumatic Stress Disorder. An estimated 14% of the general population have experienced some type of anxiety disorder in the last 12 months.

Post Traumatic Stress Disorder (PTSD) can be brought on by being involved in or witnessing distressing situations such as a major accident, a natural disaster, or being a victim of violence or abuse.

As with Depressive Disorders, anxiety disorders often develop over time; hence symptoms can sometimes be ignored or accepted as a normal part of life. If the symptoms of anxiety or depression are left untreated, they can affect the person with the disorder and their relationships with family, friends and colleagues at work.

SUBSTANCE USE DISORDERS

It is estimated that 5% of the community have experienced a substance use disorder in the last twelve months with harmful alcohol use, being the most common disorder.[7] Harmful use of alcohol or drugs is responsible for, or substantially contributes to, physical or psychological harm, including impaired judgement or dysfunctional behaviour. Drug use includes the use of illicit substances and the misuse of prescribed medicines. Dependence occurs when the use of alcohol or drugs takes on a much higher priority for a person than other behaviours that once had greater value. The central characteristic of dependence is the strong, sometimes overpowering, desire to take the substance despite significant substance-related problems.[7]

People with substance use disorders may have difficulties meeting their responsibilities associated with work and family. Their performance at work may be affected and they may have increased absenteeism. The use of substances may continue despite recognition that it is contributing to a range of problems including relationships with family, friends and colleagues. Risk taking behaviours such as driving cars while intoxicated or becoming abusive and violent are more common. Some people may also experience legal problems associated with the substance use

2.2 SUICIDE AND SUICIDAL BEHAVIOUR

Suicide is the main cause of premature death among people with a mental illness. Determining accurate data is problematic potentially resulting in underestimates of suicides and requiring caution in interpretation.[9] Most instances of suicide are associated with mental illness, most often depression. Substance use is also associated with suicide, most commonly problems with alcohol use.[10]

There are a range of factors that indicate people are at greater risk of suicide and signs that people may be having suicidal thoughts. Figure 3 describes the risk factors, warning signs and events that may lead to suicide.[11] Behaviours such as increased alcohol or drug use or withdrawing from friends,family or society are some of a number of warning signs for suicide. The risk of attempting suicide may be triggered by specific incidents or "tipping points" such as a loss of a relationship, or status or respect. For family friends and colleagues, knowing the warning signs and responding quickly and effectively may save a person's life.[11]

An attempt of suicide may also be a sign that a person may be experiencing symptoms of a mental illness. In the Australian National Mental Health Survey, 368,100 people reported suicidal ideation (serious thoughts about committing suicide) in the 12 months prior to the survey interview, with almost three-quarters (72%) of these also showing symptoms of a mental illness during the previous 12 months.[7]

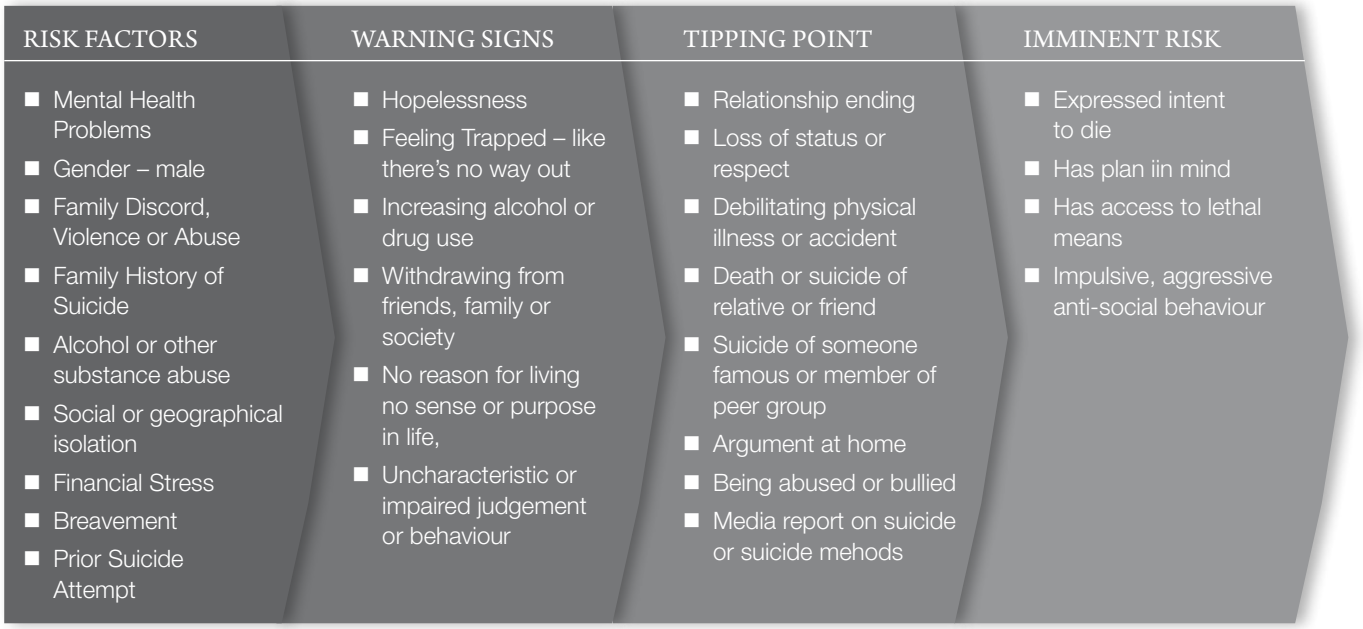
Any expression of suicidal thoughts should be considered an indication of the need for further help and advice. There are some important myths about suicide. Contrary to commonly held misbeliefs, asking about suicidal thoughts does not cause a person to feel suicidal or to act on those thoughts.

2. WHAT IS MENTAL HEALTH AND MENTAL ILLNESS?

On the contrary, it is often a relief for people to discuss their distress and it can be the first step to getting help that is needed.

Furthermore, any expression of suicidal thoughts should be taken seriously and help provided for the person to get some professional advice. A common myth is that people who talk about suicide are not serious – many people who attempt suicide or die by suicide will make reference to their thoughts and distress to others, so when this does occur it can be a critically important opportunity to start them on the path to getting help.

FIGURE 3: EXAMPLES OF TYPICAL TRIGGERS AND PRECIPITATING EVENTS TO SUICIDE[11]



3. THE SCOPE OF THE MENTAL ILLNESS IN THE COMMUNITY

KEY MESSAGES

- Mental Illness in the community is common
- It is likely that 1 in 5 (20%) of people in the community has experienced one of the common mental illnesses in the last 12 months
- Mental illness is most common in working years
- Mental illness affects all levels of employment

Mental illness is common with an estimated 45% of Australians experiencing some form of mental illness at some time in their life.[7]

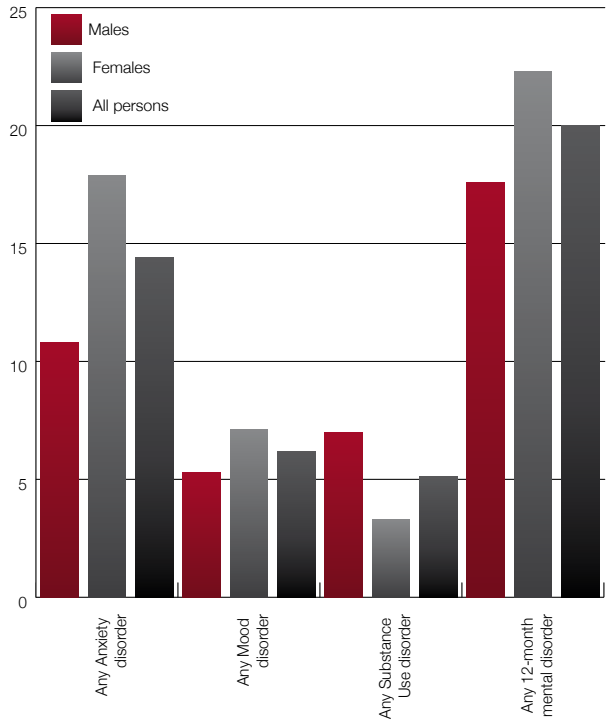
3.1 COMMON MENTAL ILLNESSES IN THE COMMUNITY

In a twelve month period one in five (20% or 3.2 million people) Australians will have experienced a mental illness.[7] In relation to the three most common categories of mental illness, in a twelve month period it is estimated that of Australians between 16 and 85 years:

- 14% will experience an anxiety disorder
- 6% will experience a mood disorder such as depression
- 5% will experience a substance use disorder[7]

There are variations between men and women in the prevalence of mental illness in Australia (Figure 4).

FIGURE 4: PREVALENCE OF COMMON MENTAL ILLNESSES BY GENDER



Overall women of all ages (22%) experience higher rates of 12 month mental illness than men (18%) with higher rates of anxiety(18% and 11% respectively) and mood disorders (7.1% and 5.3% respectively) compared to men.[7] However, men have twice the rate of Substance Use disorders (7.0% compared with 3.3% for women).[7] Harmful use of alcohol is the most common substance abuse disorder (2.9%) with men having twice the rate compared to women.[7]

Mental illnesses vary across age groups with younger people (16-35 years) experiencing higher prevalence of any disorder (25%) in the last 12 months in these age groups. In each of these common disorders peaks in prevalence in males and females occur in working age groups. Figure 5 shows the peak prevalence of anxiety disorder for males (15%) in the 35-44 years and for females (22%) in the 16-24 years age group.[7]

3. THE SCOPE OF THE MENTAL ILLNESS IN THE COMMUNITY

FIGURE 5: PREVALENCE OF COMMON MENTAL ILLNESSES BY AGE

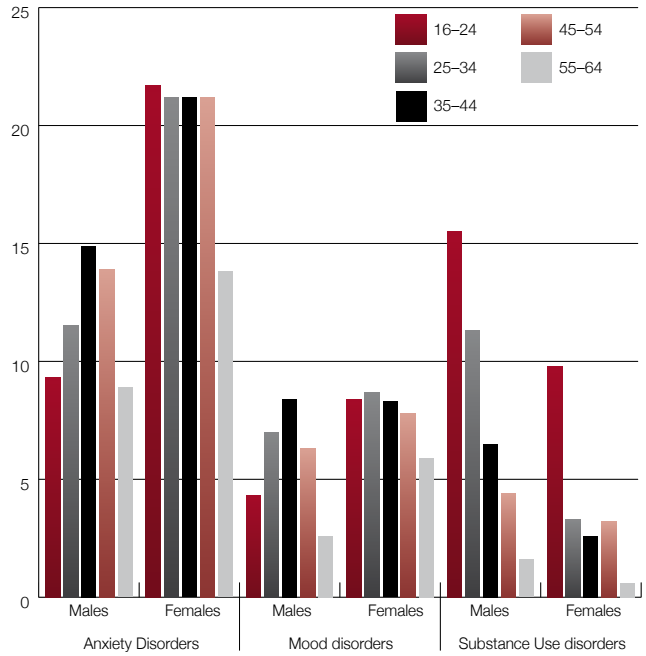
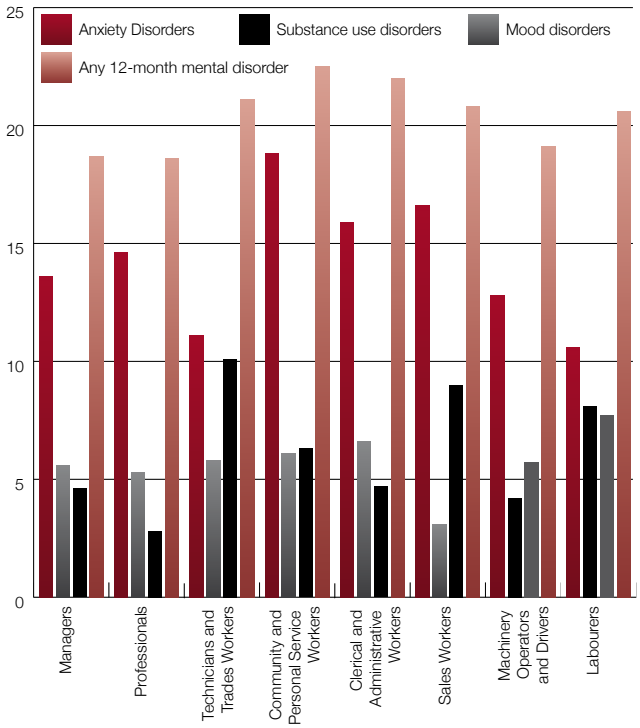


FIGURE 6: PREVALENCE OF COMMON MENTAL ILLNESS BY EMPLOYMENT CATEGORY



For mood disorders such as depression prevalence in males (8%) peaks in the 35-44 year age group and for females (9%) in the 25-34 years age group. Peaks in prevalence for substance use disorders indicate that prevalence rates are at their highest in younger males (11% – 16-24 years) and for females (10%) in the same age category.

Mental Illness also affects people of all educational and income levels, cultures and employment categories. Figure 6 shows the prevalence of the common mental illnesses by category of employment.

These data indicate variations in prevalence across employment categories and mental illnesses. Technicians and trades workers have the highest prevalence of 12 month subtance use disorders (12%), with community and personal service workers having the highest level of 12 month anxiety disorders (19%). Clerical and administrative workers have the highest prevalence of mood disorders (7%). The prevalence of any 12 month orders is close to 20% for all employment categories and ranges from 19% in professionals and managers to 23% in community and personal service workers.

3.2 RISK AND PROTECTIVE FACTORS

KEY MESSAGES

Risk factors for onset or recurrence of mental illness include:

- Being physically inactive, overweight or obese, smoking, at risk alcohol use and misuse of drugs
- Psychological distress, chronic illness

Protective Factors for onset or recurrence of mental illness include:

- Stable relationship or being married
- Strong family and social networks
- Being employed

Whether or not a person develops a mental illness seems to depend on a range of individual, social and community factors. Not surprisingly, when a person experiences one or more negative life events and experiences higher levels of psychological distress[1] or difficulties coping they have a higher risk of a mental illness in a twelve month period.[7] Chronic stressors, including economic stress and social disadvantage, can play a part in triggering and exacerbating mental illness and mental health problems.

A person's lifestyle or behaviour factors can also influence mental health and mental illness in either positive or negative ways. These factors include level of exercise (physical activity), diet, weight, tobacco use (smoking), alcohol consumption, use of illicit drugs, and the misuse of prescribed medicines.[7]

Being employed is a protective factor for good mental health and well-being. Employed people are less likely (20%) to experience a mental illness in a 12 month period than those who are unemployed (29%).[7] Unemployed people (11%) experienced almost twice the prevalence of substance use disorders compared to employed people (6%) and almost three times the prevalence of mood disorders (15.9% and 5.7% respectively).

At the social level, experiencing a positive family environment during childhood, particularly the stability of families and the quality of parenting, and having supportive early childhood relationships with peers and other adults, are important foundations for good mental health in childhood and adulthood. Conversely children who are separated from their primary care giver, are exposed to family breakdown or family violence, or who are otherwise deprived of positive nurturing are more likely to develop mental illnesses and mental health problems.[3] This evidence suggests that it is very important that parents, who have a mental illness, seek and receive effective treatment to ensure that their children are not adversely affected by the behaviours which can be associated with untreated mental illness.

In adult life, the support and trust experienced in close relationships, especially in marital relationships and the social support derived from close family and friends, is important in maintaining good mental health and well-being. People in stable relationships or married are less likely to have mental illness compared to those not in or in unstable relationships.

While the prevalence of 12 month mental illness was similar for people who did (20%) or did not (23%) have contact with family, the impact of not having contact with friends was more marked.[7] Of people who had contact with their friends, one in five (20%) had a 12-month mental illness, while for those who had no contact with friends or no friends, 38% had a 12-month mental illness.[7]

Community factors also play a role. Individuals living in communities with low levels of social cohesion (the bonds that bring people together) have been identified as having higher rates of mental illnesses and mental health problems.[12] Being connected to community (as demonstrated through participation in community networks and being a member of sporting, cultural or religious groups) has been identified as being supportive of positive mental health and well-being.

3.3 SUICIDE AND SUICIDAL BEHAVIOUR

In 2010 in Australia, there were 2361 individuals who took their own life. More than three times as many men as women died by suicide. The median age at death for suicide in 2009 was 43.4 years for males, 44.9 years for females and 43.8 years overall.[13]

Suicide rates for men increased during the 1980s and 1990s and reached a peak in 1997 since when rates have decreased and appear to have reached a plateau over recent years (Figure 7). In 2000, the highest rates of suicide among men were found in the 30-34 years age group. In 2010, the 40-44 year age group had the highest rates. The annual rates of suicide among women have varied very little during the 21st century. The numbers of suicides in younger (15-24 and 25-34 years) ages more than halved in the 10 years prior to 2007.

1. Psychological distress – symptoms of anxiety and depression

3. THE SCOPE OF THE MENTAL ILLNESS IN THE COMMUNITY

FIGURE 7: SUICIDE RATES PER 100,000 PEOPLE IN AUSTRALIA 1989-201 BY GENDER

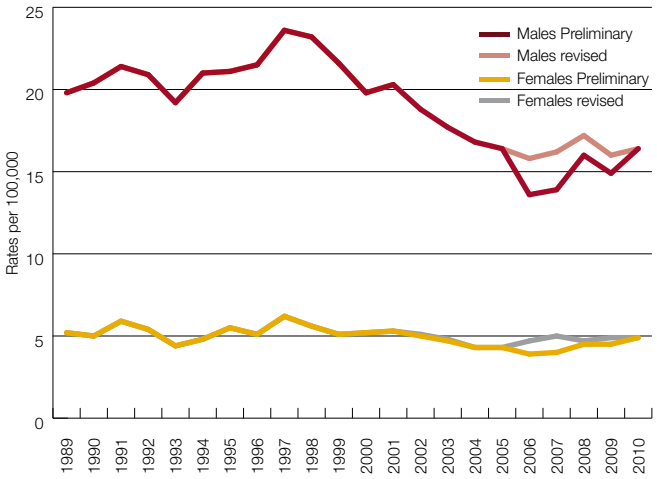
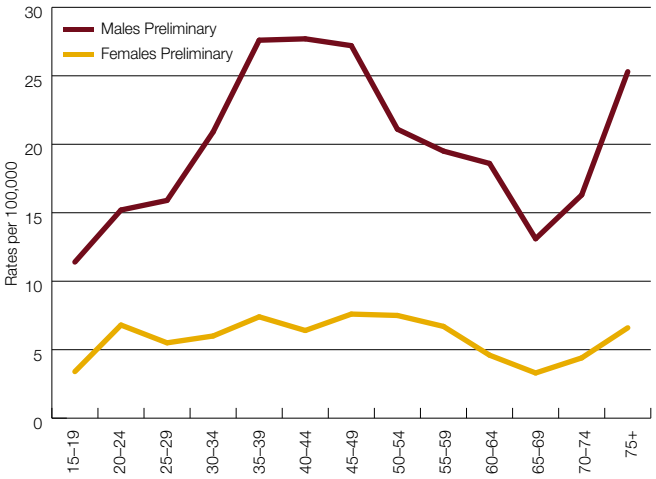


FIGURE 8: SUICIDE RATES FOR MALES AND FEMALES BY AGE IN 2010



In 2010, the highest rates of suicide for men were in the middle years – 35-49 years (Figure 8). In these age groups, rates are between 27 and 28 per 100,000 people. For women rates peak in the 35-39 age groups (7.4/100,000) and again in 45-49 years (7.6/100,000) and 50-54 year (7.5/100,000) people. When men and women are combined, the peak rates of suicide occur in 35-49 years with rates of just over 17/100,000 people.

3.4 PHYSICAL AND MENTAL HEALTH

Physical health and mental health are interrelated. Poor physical health can impact on mental health,and poor mental health can impact on physical health. Evidence has linked mental illness such as depression to poor cardiovascular health and a range of other physical health conditions.[4]

These relationships are relevant to all ages and stages of life. Children with low-birth-weight, chronic illness or developmental problems are at greater risk of mental illness in their lifetime. Positive mental health and well-being is more likely to be associated with people with good physical health. A person with co-occurring illnesses is likely to experience more severe and chronic medical, social and emotional problems than if they had a single illness.

People with mental illness have an increased risk of experiencing physical illnesses. This can be due to their health behaviours while experiencing a mental illness, the effect of the mental illness on their adherence to medical treatments for any physical health problem, and social barriers to obtaining treatment.[14] Similarly people with a physical health problems are more likely to experience alcohol and drug relapses, and relapse of mental illnesses and mental health problems. Higher numbers of disorders are associated with greater impairment, higher risk of suicidal behaviour and greater use of health services.[7]

4. THE SCOPE OF THE MENTAL ILLNESS IN THE NSW MINERALS INDUSTRY

KEY MESSAGES

- It is likely that the prevalence of mental illness in the NSW Minerals Industry would be similar to that of the general community
- Estimates between 8,000 and 10,000 people in the NSW Minerals Industry experience one of the common mental illnesses in a 12 month period

Evidence about the prevalence of mental illnesses in the mining sector in Australia is limited. There are no studies which have measured the prevalence of mental illness in the industry perhaps due to the logistical difficulties of conducting such studies. These difficulties are further compounded when the data being collected is in areas that would be considered sensitive in the workplace (such as mental health).

However given the evidence about risk factors for mental illness outlined in earlier chapters it is reasonable to assume that the prevalence of the common mental illnesses in the NSW Minerals Industry is at least equivalent to that of the community as a whole. In some instances based for example on data about alcohol consumption, it may be that the prevalence of common mental illnesses such as substance use disorders might be higher than the general community.

In addition, and as reinforced by stakeholders consulted in the development of this paper, the collection of data relating to mental health and illness faces a range of cultural and structural barriers in workplace settings. For example screening for mental illness would require complex strategies for actually measuring each member of the workforce and, more importantly, strategies for responding to those who may be detected as having a mental health problem or illness. Stigma and concerns about job security for those identifying are significant concerns of workers. These concerns expressed by some stakeholders, are reinforced in health service data which indicates that 41% of mine employees who compulsorily undergo medical surveillance every 3 years do not respond to those parts of the screening which involve measurement of mental health status.

In the absence of significant structural and policy approaches to mental health and mental illness, which address some of these concerns, it is likely that estimates in specific industries such as the Minerals Industry will continue to rely on application of community estimates.

4.1 MENTAL ILLNESS IN THE NSW MINERALS INDUSTRY

Analysis was undertaken to estimate overall numbers experiencing a mental illness in a 12 month period in the NSW Minerals Industry by applying national, community 12 month prevalence data to employment data for mining in NSW.

If we assume that in the last 12 months 20% of the population experienced any one of the common mental illness, and that mining in NSW employed an average of 41,264 employees in 2011, it is estimated that 8,252 employees experienced a mental illness.

Table 2 describes the numbers of full- and part-time employees who have experienced one of the common mental illnesses in a twelve month period.

TABLE 2: ESTIMATED NUMBERS OF EMPLOYEES (FT AND PT) IN NSW MINERALS INDUSTRY EXPERIENCING COMMON MENTAL ILLNESSES IN A 12 MONTH PERIOD

Mental Illness	National Prevalence Estimates of Common Mental Illnesses (%)	Estimated Numbers of Employees Experiencing Common Mental Illnesses
Anxiety disorder	14	5777
Mood disorder such as depression	6	2476
Substance use disorder	5	2063

4. THE SCOPE OF THE MENTAL ILLNESS IN THE NSW MINERALS INDUSTRY

An estimated 5,777 employees in the NSW Minerals Industry are likely to have experienced the most common mental illness –anxiety disorder in a twelve month period. Approximately 2,500 would have experienced depression and 2000 experienced a substance use disorder in a twelve month period.

Some people may experience more than one of these conditions. These are likely to be underestimates of the problem as they exclude contractors.

Employment specific data (Figure 6) suggest that people across all employment categories experience a common mental illness in a 12 month period. Further analysis can provide an estimate of the numbers affected in different employment categories in the NSW Minerals Industry (Table 3). These data are based on numbers of people employed in mining in NSW in the August quarter of 2011.

Based on the estimates outlined in Table 3, any 12 month mental illness is likely to affect all employment categories in the NSW Minerals Industry.

Studies undertaken in Australia in employee groups have reported varying levels of prevalence of mental illness and of psychological distress. For males, clerical and administrative staff (6%) had the highest prevalence of psychological distress as measured over the previous month, whereas in females this occurred in operators or laborers (7.9%).[15] In the same study prevalence estimates of high levels of psychological distress in the manufacturing industries were for men, 4% and for women 3.6%. Men working in communication industries (5.6%) and women in retail (6.1%) had the highest monthly prevalence levels across different industries.[15]

4.2 SUICIDE IN OCCUPATIONAL GROUPS

There is limited evidence of rates of suicide in mining. Despite employment being a protective factor there is some evidence linking occupation and suicide, with employees in construction, agriculture and transport having higher rates of suicide in Australia.[16] It is accepted that higher suicide rates have occurred in "blue-collar" workers such as labourers, factory workers and miners, however the evidence in specific industry sectors is lacking. Stakeholders consulted in the development of this paper described suicide as a concern in mining, while recognising it was uncommon but as having profound effects on workplaces.

4.3 RISK FACTORS FOR MENTAL ILLNESS AND MENTAL HEALTH PROBLEMS IN WORKPLACES

Employment is fundamental to how most people define themselves in western societies. While employment can be a stressor and precipitate relapse, supportive employment has many protective elements.[17]: Employment provides income, social connections and life purpose, and has the potential to increase an individual's self worth, and satisfaction.[17, 18]

The association between alcohol misuse and occupation has not been definitively determined. Some evidence suggests that alcohol abuse is higher among blue collar workers.[19, 20] Evidence also indicates that alcohol abuse is associated with longer working hours and perceived job insecurity.

TABLE 3: ESTIMATES OF NUMBERS OF PEOPLE IN THE NSW MINERALS INDUSTRY WITH A MENTAL ILLNESS IN A 12 MONTH PERIOD BY EMPLOYMENT CATEGORY

Occupation	Prevalence of 12 month Mental Illness (%)	Numbers Employed in Mining in NSW	Numbers Experiencing a Mental Illness in last 12 months
Managers	19	2000	374
Professionals	19	5000	930
Technicians and Trades Workers	21	7000	1477
Clerical and Administrative Workers	22	6000	1320
Machinery Operators and Drivers	19	16000	3056
Labourers	21	3000	618

These risks are compounded by living alone, lack of local networks and, for men, high physical demands.[21]

Long working hours and associated fatigue have been demonstrated to be associated with increased risks of depression and anxiety.[22] In one study each 10 hours' increase of work above 55 hours was related to increases in risk of depressive (17%) and anxiety (22%) symptoms.22 In an Australian study, working more than 60 hours per week was identified as the most significant occupational risk factor for psychological distress.[15]

Similarly working overtime was associated with risks of depressive illness even after accounting for a range of other family, social and workplace factors[23]. Factors which increased these risks included gender (female), younger age, lower occupational grade and moderate alcohol use.[23] Reasons for these factors contributing to increase risks of depression are unclear but are suggested to relate to work-family balance and family conflicts, difficulty in winding down after work, and also prolonged increased cortisol (stress hormone) levels.[23]

The evidence on the impact of shift work on physical and mental health and well-being is not conclusive.[24] Shift-work has been shown to disrupt sleep-wake cycles and have some negative effects on physical and mental health and on family relationships.[25] However it is unclear as to whether shift work contributes to mental illness or whether shift workers might have pre-existent psychiatric conditions. Difficulties in determining the strength of the relationship is in part due to the increased prevalence of risk factors for a range of these conditions in shift workers.[26]

The current trend in mining to have 12 hours shifts and four or seven days on and off have also contributed to concerns about lack of social identify and connectedness.[27] It was perceived that this could (or had the potential to) contribute to a range of social and family problems and mental health problems and mental illnesses such as depression and substance abuse.[27] This may in part be explained by known risk factors for mental illness being lack of social support and family instability which may be impacted by the nature of current shift arrangements. This view was reinforced by some stakeholders consulted in the development of this paper who expressed concern, which has not yet been investigated, about the impact of 12 hour panel rosters on the mental health and well-being of individuals and families.

The way in which work is structured and organized has been linked to increase risk of mental illness in a range of studies. In a meta-analysis, low decision authority, lack of participation in decision making, low decision latitude, high job demands, low occupational social support, and job insecurity were associated with a moderate risk of common mental illnesses.[28-30] Similarly, jobs with high-effort and low reward have been demonstrated to result in increased risks of common mental illnesses.[28]

These factors have been also demonstrated to be associated with absenteeism.[29] These factors are likely to increase rates of job stress which is linked to mental illness and mental health problems, as well as other health problems such as cardiovascular disease.[31]

There is also evidence for the impact of bullying, violence and discrimination in the workplace on the mental health and well-being of employees, hence the efforts to address this in legislation and regulation.[32] It has been identified as a significant occupational health and safety problem in Australia.

Workplace bullying has been shown to impact on productivity and mental health and well-being of victims and of their colleagues. For employers workplace bullying can result in absenteeism, reduced productivity and staff turnover.[32] Indeed it is estimated that workplace bullying costs Australian industry between $A3 and $A36 million dollars per year.

Risks for mental illness in the community may be associated with mining as an industry. Communities which experience rapid social changes, loss of community identity and community networks may have increased risks of mental illness in their populations.[33, 34] Similarly communities with variations in employment and income, loss of traditional values and livelihoods particularly in communities where there has been an increase in the proportion of males relative to females as a result of employment in mines substance abuse and family disconnection may have increased risks for mental illness.[35]

Communities with higher proportions of itinerant workers such as fly-in fly-out or drive-in drive-out workers may have greater risks of mental illness. In these instances, population turnover has occurred as families leave communities because of lack of non-mining employment opportunities and also where there has been rapid increases in population (often with a greater ratio of males to females) requiring housing for singles.[27]

5. MENTAL ILLNESS CAN BE TREATED

KEY MESSAGES

- Effective treatments for mental Illness are available
- Effective treatments can increase performance and productivity

Effective treatments are available for a range of mental illnesses. Importantly successful treatment for mental illnesses has been shown to increase employee health, performance and productivity.[36, 37]

Despite evidence for effective treatment in Australia it is estimated only 35% of people aged 16 to 85 years experiencing a mental illness seek assistance from a health service.[7] Of those who seek help for a mental illness most (71%) consult their General Practitioner.7 Women (41%) with a 12 month mental illness are more likely to access services for their condition than men (28%). Studies in workplaces in Australia have found that of those employees with high levels of psychological distress, the majority (78%) were not in active treatment. Concerningly 31% with high levels of psychological distress did not recognise they were likely to have a mental health problem or mental illness.[15]

The majority of people with mental illness are diagnosed by and successfully treated by their general practitioner. Primary health care services such as provided in general medical practice are the foundation for high-quality mental health care.38 These services have the potential and capacity to identify and treat common mental illness and health problems, and where necessary refer to specialists if illness is very serious or had to treat. The GP is able to see the person's mental illness in the context of their other health problems, and can make suggestions to promote mental health and well-being and prevent further episodes of mental illness.[38]

Reasons why people experiencing mental health problems or mental illnesses don't seek treatment vary. The lack of understanding of the signs and symptoms of mental illness contributes to people not recognising mental illnesses in themselves or others. In the context of the workplace stigma, lack of knowledge, and concern about job retention are suggested as factors.[39, 40] Stigma can be demonstrated by prejudice and can result in discrimination to those experiencing mental illness.

Effective treatments for common mental illnesses include psychological and medical treatment. Many will require psychological assistance or counselling alone. Some will also require medication for a period. It is possible that some people will experience side effects from anti-depressant medication which may affect a person's capacity to function at optimal level but need to be balanced against the substantial evidence regarding the adverse effects of mental illnesses on functioning. Concerns about these impacts were raised in consultation with stakeholders as part of the development of this report.

These concerns align with evidence for a range of misconceptions about treatment and specifically for medication. Concerns that medications are addictive, required for life, and are ineffective are common misconceptions in the community, all of which are refuted by evidence.[41, 42] Indeed the risks of untreated mental illness are likely to have greater effects on the individual and the workplace than risks associated with medication which can be effectively managed.

It should be stressed, however, that the impact of medication on work performance is not limited to medications for mental illness and can apply to other medications such as those for high blood pressure. As is the case with employees who take medication for any medical condition, it is important for the employer and the employee to effectively manage the working tasks and environments to ensure safe and productive work.

Stigma associated with mental illness and with receiving treatment is a barrier to individuals seeking help for psychiatric symptoms. It is also a major reason why people with mental illness to not tell (disclose to) friends and work colleagues. People might be concerned that they may be rejected for jobs if mental illness is disclosed, and some will have already experienced this form of discrimination despite legislation designed to prevent it.[43] Disclosure of a mental illness may also lead to a range of discriminatory behaviours from colleagues, supervisors and managers. Such behaviours may contribute to worsening of the illness.[43]

If a person has experienced an episode of mental illness there are a range of approaches to preventing relapses. Acceptance and recognition of the illness by the individual and their family, friends and colleagues supports awareness of the problems and early identification of risk factors and symptoms.[17] Planning and anticipation of potential future episodes of illness are fundamental to relapse prevention and are dependent on communication and trust between the individual, and their family and other supports, clinicians and their broader networks.[17]

6. IMPACT OF MENTAL ILLNESS IN THE COMMUNITY

KEY MESSAGES

- Mental illness is ranked third in Australia's burden of illness after cancer and cardiovascular diseases
- Mental illnesses are the largest single cause of disability in Australia
- The majority of this burden occurs in working age groups

There are significant personal, social and financial costs associated with mental illness. For individuals, mental illness and mental health problems can lead to a reduced quality of life, and can have adverse economic and social effects.[44] Absence from work in combination with the costs of health care may cause significant financial hardship for people with mental illness and mental health problems. These can in turn without effective treatment, lead to a worsening of the conditions.[3]

The economic difficulties related to the reduced income and increased health care costs, may impact on family relationships, disruption to the household routine, and restricted social activities.[3]

Mental illness accounted for 13% of the total burden of disease in Australia in 2003 and ranked third in the major morbidity and mortality disease burden groupings, after cancer and cardiovascular diseases.[45] Women (53%) experience this burden more than men (47%) and most (93%) of this mental illness burden for both sexes is related to non-fatal outcomes. Mental illnesses and injury in males were the main causes of the burden of illness until middle age and accounted for the majority of total burden in early adulthood.[45]

Mental illnesses were the leading cause of non-fatal burden, with most mental illness burden attributable to anxiety, depression, alcohol abuse and personality disorders. Mental illnesses are the largest single cause of disability in Australia, accounting for 24% of the burden of non-fatal disease.

Anxiety and depression were the leading causes of incident non-fatal burden in males and females followed by asthma and ischaemic heart disease. Mental illnesses accounted for six of the 20 leading causes of incident non-fatal burden in males and three in females.[45]

Over a third of the total burden of illness in the 15-44 year age group was attributable to mental illnesses.[45] Mental illnesses made up half of the top 10 leading causes of burden in males and three of the top 10 leading causes of burden in females. In this age group anxiety and depression was by far the leading single cause of burden in both males (10%) and females (27%).[45]

In the 45-64 years age group, mental illnesses represented 9% of the burden. In females in this age group, anxiety & depression was the second in the leading causes of burden after breast cancer while in males, these conditions represented 3.1% of the total burden.

In 2008, mental illnesses were responsible for 718 deaths, excluding suicide and dementia, with most deaths due to substance abuse involving alcohol and heroin.13 Suicide is the main cause of premature death among people with a mental illness. It is estimated that more than 10% of people with a mental illness die by suicide within the first 10 years of diagnosis.[7] There is evidence that this can be reduced through improved access to health services and treatments and also through community and workplace suicide prevention programs.[46]

While these data are significant they neglect the impacts of mental illnesses on the individual, families and the community. People with a mental illness may have difficulties with relationships with their families, their work colleagues and their friends and community members. Indeed the mental health and well-being of one partner in a relationship may positively or negatively impact on the mental health of the other[47]. In addition relationships with families may contribute to mental illness and mental health problems. Compounding these problems is stigma associated with mental illness and its treatment.

7. IMPACT OF MENTAL ILLNESS IN THE WORKPLACE

KEY MESSAGES

- Mental Illness costs Australian Industry between $2.6 and $5.9 billion dollars each year
- Costs of mental illness reflect the impact of reduced productivity, presenteeism, absenteeism and injury

Mental illness affects the workplace in a number of ways. Those most frequently reported effects are absenteeism, presenteeism, injuries and, ultimately, lower productivity. In combination these result in significant costs to industry. Overall in Australia in 2000 it was estimated that mental illness cost the economy $2.7 billion per year.[48] Similar studies in the United Kingdom and United States have identified cost estimates of 23.5 billion pounds and 36.6 billion US dollar each year.[49]

However these estimates vary with differences in costs related to the prevalence estimates used. Most studies used prevalence of mental illnesses in the last 12 months, which assumes constancy in conditions and effects on the workplace and discounts improvements and declines in symptoms over time. More recent estimates of costs to workplace from mental illness, using prevalence of mental illnesses in the last month in Australia are $2.6 billion dollars per year and in the United Kingdom are 43 billon pounds per year. In both countries blue collar workers account for more than half (Australia 64%, United Kingdom 51%) of these costs.

7.1 PRODUCTIVITY

The Productivity Commission identified that for both men and women, mental illness has the most significant impact on workforce participation compared to a range of other chronic diseases such as cancer, diabetes and cardiovascular disease and injury.[50] Importantly it found that when mental illness is averted or successfully treated, it has the largest positive impact on labour force participation.[50] There is evidence productivity in the workplace is closely related to the mental health of employees.[51] It is commonly reported that mental illness and precedents such as psychological distress have a profound effect on productivity in the workplace.[48, 52-55]

Methods to calculate the impact of mental illness on productivity have commonly used absenteeism alone in calculations.[54] However the inclusion of presenteeism has demonstrated that it accounts for a greater proportion of the impact of mental illness on productivity than absenteeism.[56]

Mental illnesses have been demonstrated in Australian workplaces to have a greater impact on absenteeism and presenteeism than any other health condition. Estimates of lost productivity in Australian workplaces have identified that male employees with high levels of psychological distress have lost productivity of $8,591 per annum.[57] In blue collar workers this is most likely to result from increased rates of absenteeism whereas in white collar workers it is derived from presenteeism.[57]

Estimates of productivity losses which account for both the presence of a mental illness or psychological distress and the treatment behaviours suggest much greater productivity losses. Given the lower prevalence of treatment seeking behaviour this is of particular relevance to industry. Taking into account treatment-seeking behaviours and psychological distress prevalence data, the productivity loss to Australian employers has been estimated at $AU5.9 billion per annum.

The impact across different categories varies with evidence from Australia demonstrating that blue collar workers experience a 25% reduction in productivity when experiencing psychological distress.

This reduction in productivity is greater than other categories of employees despite the levels of psychological distress being similar across all employment groups.[53] Reasons for the differences in productivity impacts are unclear but are suggested as being related to cultural factors and the relationship of knowledge of and attitudes toward mental health and well-being, mental illness and treatment seeking.[53]

In Australia, analysis of productivity effects on workplaces has been broken down by employment categories. It is estimated that for every administrator or senior manager with high psychological distress costs the employer $8800 per annum in lost productivity.[53] In the NSW Minerals Industry assuming there are 374 managers, it is estimated that costs to the industry are close to 33 million dollars in lost productivity. For operators and laborers productivity losses are estimated to be $11,067 per annum per employee and for precision production and crafts employees, $16,500 per annum per employee. These employment categories are not the same as those described by ABS. However if we assume that technicians and trades workers, machinery operators and drivers and labourers align with the categories used in these studies, productivity losses

in NSW Minerals Industry from mental illness may range from $AU288 million ($11,067 per annum per employee) to $AU429 million per year ($16,500 per annum per employee).

If these figures are applied to a mine with 170 employees, with 15 in management positions and 120 in categories related to technicians and trades workers, machinery operators and drivers and labourers, costs estimates to the mine can be made. Based on these figures it is estimated that 3 managers may have a 12 month mental illness which will cost the mine $AU264,000 per annum.

Further it is estimated that 24 employees in the technical, trades, operators and labourers will experience a 12 month mental illness at a cost of between $AU265,000 and $AU396,000 per annum in lost productivity.

These data on productivity may underestimate costs due to the evidence that employees with multiple conditions are significantly less productive on all productivity measures.[58] Given the ageing population and increasing rates of chronic conditions it is likely that the prevalence of employees with mental illness and with a chronic illness will increase in workplace resulting in greater productivity losses.

7.2 ABSENTEEISM

Absenteeism is and has always been a tangible impact of adverse health and safety at work. It is visible and measurable and hence has been used as an indicator at organisational level and also at employee level. In most developed countries it is estimated that 35-45% of absenteeism at work is attributable to mental illnesses and mental health problems.[44]

There are a number of studies which have estimated the impact of mental illness and absenteeism on workplaces in a number of different industries in Australia and overseas.[53, 59, 60] While estimates vary across studies, countries, industries and gender, there is general agreement that absenteeism due to mental illnesses and mental health problems is significant.

In addition employees with common mental illnesses who have already had absences are at greater risk of recurrences of the illness and ongoing periods of absences.[61] Productivity losses resulting from absenteeism indicate blue collar workers have greater productivity losses due to absenteeism compared to white collar workers where presenteeism was the biggest contributor to losses.[53]

7.3 PRESENTEEISM

Presenteeism refers to the decrease in productivity in employees whose health problems have not necessarily led to absenteeism and the decrease in productivity for the affected workers before and after their absence period.[62] The concept of presenteeism has emerged as a result of the significant challenges for industry in developed countries of an increasing number of people affected by chronic health conditions and an aging workforce that is more likely to be affected by these conditions.[63]

While absenteeism is a relatively tangible measure of the impact of mental illness on workplaces, presenteeism is harder to estimate. However evidence is emerging that presenteeism accounts for more productivity losses in the general population than absenteeism especially in relation to mental illness.[64]

Given its recent emergence as a concept, its measures attract diverse opinion and currently there is not universal agreement on its measurement or on attributing cost values.[63] Hence estimates needed to be considered with caution. However costs associated with reduced work output, errors on the job, or failure to meet company production standards are commonly used indicators used in presenteeism algorithms.

Employees with moderate levels of psychological distress have demonstrated increased levels of presenteeism.[53] Given that moderate levels of psychological distress are prevalent the impact of presenteeism is likely to be significant in workplaces. A number of different estimates of the impact of presenteeism have been reported ranging from 3.5 hours per day to 3 days per month or over 18 days per year.[53] As well the extent of presenteeism is related to the severity of symptoms.[53]

7.4 INJURIES

The costs of workplace injury to Australian industry and the community are significant, with estimates of $57.5 billion dollars in 2005-06, or 5.9% of Australia's gross domestic product.65 Australian Bureau of Statistics data indicate that in 2009-10 the prevalence of workplace injuries was 5.3% of all employed persons.[65] This equates to 5.3 injuries for every 1000 employees with more (56%o of all injuries) men injured than women, reflecting a greater proportion of men employed.[65]

Overall injury rates in Australian were highest in men aged 45-54 years (66 per 1,000) and highest in women (59 per 1,000) aged over 45 years. Occupational risk varies understandably dependent on risks in workplace environments. In 2009-10, the highest occurred in more manual, blue collar occupations groups such as Labourers (88 per 1,000), Machinery Operators and Drivers (86), and Technicians and Trades Workers (78).[65]

7. IMPACT OF MENTAL ILLNESS IN THE WORKPLACE

The performance in relation to injury in the minerals industry in NSW has seen significant improvements over the last five years. The five year average fatal injury frequency rate to June 2011 fell by 37.5% compared to June 2006. The five year average frequency rates of lost time injuries and serious bodily injuries continued the downward trend of the past decade. There were 14% fewer lost time injuries in 2010-11 than in the previous year. The five year average lost time injury frequency rate to June 2011 fell 53.9% compared to June 2006. The five year average serious bodily injury frequency rate for 2010-11 reached a record low of 0.88 and fell by 48.5% compared to June 2006.

There were 9.2% fewer total recordable injuries in 2010-11 than in the previous year. Both National OHS Strategy targets, to reduce fatalities by 20% and serious injuries by 40% in the ten years 2002-2012, were achieved.[66]

There is some evidence of an association between mental illness and accidents at work. In Australia in a study of truck drivers the risk of workplace accidents or near misses increased by 4-5 times if severe or very severe depressive symptoms were present.[67] Internationally evidence of this link has been shown in a variety of occupational settings. Similarly links between moderate and high levels of psychological distress, a significant risk for mental illness, and workplace accidents has been demonstrated.[68] This suggest opportunities for further improvements in injury performance with a comprehensive approach to mental health in the industry.

8. IMPACT OF MENTAL ILLNESS IN THE WORKPLACE

KEY MESSAGES

- Mental Illness costs Australian Industry between $2.6 and $5.9 billion dollars each year
- Costs of mental illness reflect the impact of reduced productivity, presenteeism, absenteeism and injury

It has been suggested that in relation to occupational health and safety that employers are in transition, moving from managing the costs of health-related claims to managing the health of their workforce.[69] This has two related implications: how to understand the health of the workforce and its relationship with work and productivity; and how to measure, monitor and address the productivity impact of health. Indeed some forward thinking workplaces are adopting a strategic approach to workplace health and safety that focuses on health related productivity as the most compelling cost issue related to employees' health.

In relation to mental health and well-being and mental illness, this represents a significant challenge for the NSW Minerals Industry. It may require significant changes in the conceptualisation, and thus strategy in their organisations, not just specifically for mental health and well-being, but for health and productivity in general. In particular it will necessitate a more strategic and holistic approach to maximising productivity in the workforce by consideration of approaches targeting individuals but also by considering structures and systems in the workplace.[64] This approach has the potential to place the NSW Minerals Industry at the forefront of industries in relation to mental health and well-being. It also has the potential to negate some of the stated concerns raised by stakeholders that addressing mental health in workplaces could open up a range of adverse consequences for workers and the industry.

Failings in workplace health and safety have been attributed to the dominance of a focus on safety frequently at the expense of health. When workplace health and safety programs address health, mental health is often ignored despite evidence for the close link with safety and producitvity.[70]

Studies of methods to address mental illness or its precedents in the workplace suggest greatest effectiveness of these methods when a systems approach is undertaken. This suggests that interventions which target individuals but also address organisational systems and structures are most likely to be effective. This reflects evidence in health services which demonstrate the need for providing care to patients but also to ensuring that systems are in place in order to influence population level rates of suicide and also depression.[46] Effective approaches in the workplace can target individuals and the workplace through enhancing individual knowledge and coping skills, improving job design and work practices, and creating a supportive work environment that values and respects workers and encourages work-life balance.[40] Such multi-component programs have demonstrated improvements in mental health and well-being, but also in family and marital difficulties among employees.[71] They can be supported at corporate level by policies which support mental health promotion, prevention and treatment for those experiencing illness.[40]

8.1 PROMOTING MENTAL HEALTH AND WELL-BEING

Promoting mental health and well-being in the workplace encompasses a range of strategies to promote understanding of mental health and well-being, and mental illness to prevent and effectively manage the social and economic costs of common mental illnesses such as depression.[72] In the context of the minerals industry in NSW this could extend to the communities in which mines are located, given the importance of factors such as family and community connectedness in supporting mental health and well-being, and preventing mental illness.

IMPROVING MENTAL HEALTH LITERACY

Mental health literacy is defined as knowledge and beliefs about mental illness, which aid their recognition, management or prevention.[73] Programs to improve mental health literacy are designed to address knowledge of common symptoms of mental illness, methods to encourage seeking of advice and treatment, and overcoming fear of disclosure of mental illness and the related fear of the effect on job security and collegial support. Evidence suggests recent improvements in understanding about mental health in the Australian community in general (especially in relation to depression), but misconceptions about mental illness and treatments are still common and act as a barrier to recognition, detection, treatment and support.[74]

Programs which aim to improve mental health literacy have mostly been community based and reliant on mass media. Key messages from these programs indicate the need for tailoring to audiences suggesting the necessity for specific messages relevant to the mining sector and the diverse groups within the industry. In particular programs are needed which focus on knowledge of common mental illnesses, risk factors and treatment options in the context of the cultural aspects of mining.

8. IMPACT OF MENTAL ILLNESS IN THE WORKPLACE

ADDRESSING PROTECTIVE AND RISK FACTORS

The protective and risk factors for mental health and mental illness have been described in previous chapters. Policies and programs to support protective factors and reduce risk factors are part of a comprehensive approach to mental health in workplace settings. For example, many workplaces, including those in the minerals industry have comprehensive approaches to drug and alcohol use, mostly in the context of occupational health and safety. These programs have been most effective when they involve multiple strategies targeting individual behaviours and workplace systems and structures.[75]

Health promotion programs which have targeted a range of factors associated with employee health and safety have been demonstrated to be effective.[63] Given the range of risk and protective factors for mental illness and mental health, the need for developing comprehensive programs targeting known risk factors is suggested.

ADDRESSING STIGMA

An impediment to seeking support and/or treatment for mental illnesses and mental health problems in some settings, especially in male dominated industries, is the "macho culture".[76, 77] In the development of this paper this was also raised as a significant impediment to recognition of symptoms, access to treatment and disclosure of diagnosis and treatment. The culture of "we're tough, this doesn't happen to us" combined with the "she'll be right mate" attitude was described as common in mining. It is unlikely that strategies to address mental health and well-being and mental illness will be successful without challenging these cultural impediments and the associated stigma.

CONSIDERING THE IMPACT OF ORGANISATIONAL STRUCTURE ON MENTAL HEALTH AND MENTAL ILLNESS

Evidence suggests that when lack of control over decision making, 'burn out', effort/reward imbalances and job insecurity occurs the risks of mental illness and mental health problems are greater.[78] An implication of this evidence is for workplaces to ensure that those "lower" in the formal power structure have a significant and meaningful input into planning, policy and decision-making at work.[4] Specific interventions which focused on participation by employees in decision making improved mental health and well-being and productivity in some workplaces.[79]

While the evidence of shift work on mental health and well-being is not definitive, the impact on the mental health of employees and their families of 12 hour panel rosters has been raised. This obviously requires further investigation. However, part of the commitment to address mental health and well-being in the NSW Minerals Industry could include investigation of the structures within workplaces which may have adverse consequences on the mental health of their employees.

TABLE 4: CHARACTERISTICS OF MENTALLY HEALTHY WORKPLACES

Characteristic	Demonstrated by
■ productivity and peak performance in individuals, teams and organisations ■ an accounting for people's feelings ■ effective communication ■ satisfying workplace relationships ■ a quick and effective approach to dealing with difficulties[80]	■ trust ■ friendship/ camaraderie ■ practical support with problems in the workplace and home ■ shared values and goals ■ shared understanding (including noticing signs and symptoms of unhappiness) ■ equality (between people) ■ effective teamwork/ leadership (between roles) ■ rapid resolution of difficulties and conflicts using resources within organisation ■ meeting team and organisational productivity targets.[80]

Characteristics of mentally healthy workplaces are described in Table 4. These characteristics reflect the risk factors for mental illness in the community and in workplaces. They also relate to the structures and systems within workplaces. Striving to achieve these characteristics should be a focus of strategies in individual workplaces and at corporate level to create mentally health workplaces. As such they provide guidance for the principles for mental health policies in the industry and in specific workplaces.

8.2 APPROACHES TO SUPPORTING PEOPLE WITH MENTAL ILLNESS

While estimates indicate there are large numbers of people in the NSW Minerals Industry who will have experienced one of the common mental illnesses in the last 12 months, the majority do not recognise or seek treatment. The recognition of mental illness and increased access to treatment are thus important components of any workplace strategy.

INCREASED DETECTION AND REFERRAL

Most mines provide health services for employees through in-house health staff or through contracts with organisations such as Coal Service Health. Coal Service Health undertakes mandatory health assessments of all coal employees every three years. In the last two years they have introduced screening for mental health (K6) and for alcohol use disorders (AUDIT). While response rates to these questions are low, it is important that these instruments are used and are complemented by policies which support an increase in identification, referral, treatment and support in mines.

Health staff employed by mines also have a role in detection of, and referral for common mental illnesses. This will require commitment from the industry demonstrated by support for training in mental health. However it is unlikely that this will be effective in the absence of a comprehensive approach which transparently outlines the options for people who are detected as having a mental illness.

SUPPORTING EMPLOYEES ON RETURN TO WORK

Employees with one of the common mental illnesses who have had absences from work often find return to work difficult for a range of reasons. They may return to work too early, and they may find that workplace factors exacerbate their condition. As a result recurrences in absenteeism are common amongst employees with one of the common mental illnesses.[81]

Frameworks for return to work from a range of health conditions and injury exist in most workplaces, and align with requirements under Occupational Health and Safety and other workplace legislation.

Stakeholders consulted as part of the development of this paper recognised these frameworks but indicated they were rarely applied in the context of mental illness. Reasons for this mainly related to lack of disclosure about mental illness in the mining sector. They acknowledged that the frameworks could be applied in the case of mental illness. However they also identified impediments related to the structured nature of work in mining with limited ability to reorganise job tasks to meet needs of an employee returning to work. Given that the approaches to return to work for mental illness and mental health problems have not been commonly applied in mining it is difficult to determine whether this a real or perceived impediment.

IMPROVING RECOGNITION OF MENTAL ILLNESS AS A CONTRIBUTORY FACTOR TO PERFORMANCE AND PRODUCTIVITY

There is substantial evidence of the impact of mental illness on productivity and in particular on absenteeism and presenteeism. These impacts are even greater when other conditions co-exist.[64]

Given that the majority of people with a mental illness do not seek treatment, improving recognition of and access to treatment has potential for impacting on employee health and on productivity. Specific programs in individual workplaces which have demonstrated effectiveness include educational mental health programs and supervisor training.[63]

In the mining industry strategies to address improved recognition of mental illness as a contributory factor to performance has potential as part of an integrated approach to supporting people with a mental illness. Supervisor training in recognition of symptoms of mental illness, and their impact on work is one such strategy. Similar strategies were applied in some mines in the development of drug and alcohol policies. In these instances supervisors were trained to recognise performance problems which may relate to drug and alcohol use. Critical to their success in drug and alcohol in workplaces were policies which would support referral for treatment, and

8. IMPACT OF MENTAL ILLNESS IN THE WORKPLACE

would protect workers' rights. These policies were developed over time and in consultation with employees, unions, and occupational health and safety staff. The principles which applied to these drug and alcohol policies align with those which could be adopted in the development of policies for employees who may have one of the common mental illnesses.

It is clear that if supervisors are to be able to raise sensitive issues with staff members, such as opening up a conversation about behaviours that affect a worker's productivity, they need to be able to communicate effectively and in such a way as to make it safe for the worker to disclose any emotional or other psychological problems they may be experiencing. If supervisors do not have these skills, there is potential for such conversations to be avoided (thus allowing the productivity issue to continue and the worker to continue to experience problems) or to be handled badly (which could lead to a range of industrial problems). Strategies to ensure supervisors can conduct sensitive conversations may need to be developed and evaluated.

DEALING WITH STRESSFUL WORKPLACE EVENTS

Mining is potentially a high risk workplace with fatality rates (3.5 fatalities/100,000 workers) in 2009-2010 second only to the Agriculture, Forestry and Fishing industry (6.9 fatalities per 100,000 workers).[65] While it may not compare to industries such as defence and emergency services where exposure to trauma is common, employees in the industry may still be exposed to events such as workplace injuries and less commonly, fatalities.

In settings such as military and emergency services post-traumatic stress disorder (PTSD) is a not uncommon consequence for personnel who experience directly or witness traumatic occurrences as part of their work.[82] These workers often do not identify as having PTSD which has resulted in a range of early intervention and screening approaches in these workplaces. Further, there is evidence that people with PTSD often use alcohol as a coping mechanism, requiring interventions which address PTSD to concurrently address alcohol.[82]

While the evidence for screening for PTSD, or the level of exposure to trauma in the mining sector may not warrant routine screening as a strategy in mines, there may be a need for a policy approach to anticipate and manage employees who are exposed to particular workplace incidents.[83]

8.3 COMPREHENSIVE APPROACHES IN INDUSTRY

The NSW Farmers Blueprint for Mental Health is an example of an industry led strategy that grew from the recognition of unaddressed mental health needs of this sector, and the importance of a multipronged approach.[84] Being led by the peak industry group gave important guidance, leadership and credibility to the process. This type of approach emphasised that effective responses to mental health needs is the business of all stakeholders not only the health services or the industry body alone.

Collaboration around evidence-based strategies in which all agencies have a contribution to make is critical to the success of such ventures. with clear roles for industry organisations through to health services[84] This Blueprint provided a practical means for relevant mental health and farming agencies to identify key issues that are amenable to preventive action and approaches for improving the mental health and well-being of the farming population. Importantly it assisted in gaining the commitment of stakeholders to work collaboratively in agreed directions. Such a strategy also provides a mechanism for identifying current gaps in activity or services. Research and evaluation are critical components of such a strategy, to ensure that interventions are tested for their impact, and any gaps in evidence are being addressed.

8.4 SUPPORTING APPROACHES WITH RESEARCH AND EVALUATION

Determining strategies which are likely to be effective in the NSW Minerals Industry is problematic.

Approaches to addressing mental health and well-being and mental illness in workplace settings is an emerging field of research with a paucity of empirical evidence to definitively determine the most effective strategies. Rather there is reliance on research which shows promise and may be applicable in the mining sector but may lack the empirical rigour which may normally be expected.[85] Further as in most areas of health, there is a need for multiple strategies some of which may need to be tested using rigorous research methods to determine if they are effective and sustainable in a workplace setting.

There are three specific areas of research and/or evaluation which are needed to improve the understanding of mental health and well-being and mental illness in the NSW Minerals Industry:

1. There is a need to better understand the extent of mental illness, and the associated risk factors in the industry. This would negate the need for reliance on community estimates which have the potential to over or under-estimate true prevalence.
2. Given the substantial evidence of the impact of mental illness on productivity, there is a need to improve measurement of productivity indicators and their relationship to mental health and wellbeing and mental illness. This would allow a more accurate estimation of costs for the mining industry.
3. There is a need to test the efficacy and effectiveness of interventions which aim to address different aspects of mental health and well-being in mining and the communities in which they operate requiring interventions tailored to the diverse nature of employment and conditions in mining. This is an important opportunity for the industry, for researchers and ultimately for employees and their families.

9. EFFECTIVE APPROACHES IN THE WORKPLACE

KEY MESSAGES

- Addressing mental health and well-being in the workplace is an emerging field requiring commitment from the NSW Minerals Industry at all levels which could potentially place the industry at the forefront in managing the health of employees
- There are no single solutions to address mental health and well-being and mental illness. It requires a strategic and comprehensive approach to the issue with a range of integrated system, workplace and individually focused strategies
- As an emerging field there is a need for commitment to research and evaluation to ensure a better understanding of mental health and well-being and mental illness in the industry, its impacts on productivity and testing the strategies for effectiveness

Mental illnesses are affecting large numbers of employees and their families in the NSW Minerals Industry and costing the industry in terms of absenteeism, presenteeism and lost productivity. The data on costs alone suggest the need for the NSW Minerals Industry to take a proactive approach to addressing mental health and well-being in the sector through comprehensive and integrated policy and programs.

The principles which should guide a comprehensive integrated approach to mental health and wellbeing in the industry are suggested as being:

AT THE EXECUTIVE LEVEL

1. Commitment to addressing mental health and well-being in the context of the industry and workplace
2. Creation of psychologically safe workplaces
3. Creation of a climate that promotes safe disclosure of mental health problems and mental illness

AT SUPERVISOR LEVEL

4. Development of interactional skills to encourage staff to be open about mental health problems and mental illness
5. Ensuring pathways to care
6. Commitment to managing and supporting staff who have mental health problems and mental illness
7. Commitment to managing and supporting staff or contractors experiencing a mental health crisis

AT THE WORKFORCE LEVEL

8. Supporting the maintenance of good mental health and well-being
9. A commitment to general mental health literacy

These principles, and strategies outlined in the recommendations aim to ultimately:

- Increase the knowledge and skills of employees in relation to mental health and well-being and mental illness
- Improve the attitudes towards mental health and well-being and mental illness
- Increase the number of employees who access treatment for mental health problems and mental illness
- Increase the number of employees with a mental health problem and mental illness who return to work
- Reduce the costs associated with mental illness in the NSW Minerals Industry

9.1 RECOMMENDATIONS

On the basis of the evidence collated for this review, including models of workplace or organisational interventions for mental illness and mental health problems in other settings the following recommendations are made for consideration by the NSW Minerals Council aimed at guiding future strategies to address mental health needs in NSW Minerals Industries:

1. That the NSW Minerals Council commits to the principles and aims outlined in this chapter and apply these in the development of future strategies.
2. That the Executives of the NSW Minerals Industry commit to reviewing, and where needed developing, policies and procedures which support comprehensive and integrated approaches to improving mental health and well-being and supporting people with mental health problems and mental illnesses.
3. A ‘Roadmap for Mental Health” is developed to provide a plan and related timeline for a defined set of priority actions aimed at improving the mental health and well-being within the NSW Minerals Industry to include.

a. Promoting mental health and well-being through

   i. the development and implementation of a mental health literacy program tailored to the NSW Minerals Industry, and to different categories of employees for implementation in mines

   ii. the development and implementation of comprehensive programs to address protective and risk factors for mental health and mental illness

   iii. the development of a strategy to reduce stigma of mental health problems and mental illness among all levels of the workforce

   iv. steps to assist family and community functioning through promoting social networks and family support for employees

b. Supporting people with a mental illness through

   i. the development of a policy and protocol framework to support the people with a mental illness in the industry

   ii. the development of "pathways to care and advice for mental health problems and mental illnesses" which includes approaches for return to work

   iii. development of a training program for supervisors in the recognition of mental health problems and mental illnesses in the context of performance, supported by effective communication skills and appropriate referral

   iv. a planned implementation of Mental Health First Aid training for current holders of general first aid certificates

   v. specialist support and advice to existing health service providers to ensure provision of effective and responsive mental health care for all levels of need

   vi. development of protocols to support employees in the event of stressful workplace events

4. The formulation of the 'Roadmap" be initiated by a workshop of representatives from stakeholder organisations and health advisors to ensure the actions reflect the industry priorities and the strategies are tailored to best fit the environment and target groups.

5. The subsequent implementation and evaluation of the Roadmap should be overseen by an industry led working group comprising industry representatives and leaders, and relevant health service providers and researchers to assist in guiding implementation and evaluation.

6. A research and evaluation strategy that addresses current evidence gaps as identified through Roadmap workshops, and that provides a firm basis for robust evaluation of interventions arising from the Roadmap strategy.

9.2 CONCLUSION

Mental illnesses are common in the community, in workplaces and in the NSW Minerals Industry, affecting a significant proportion of mine employees and contractors in all employment categories. The impact of mental illness in the workplaces results in significant costs related to productivity, absenteeism and presenteeism as well as the costs to individuals, their families and their colleagues. As a result it makes sound business sense to adopt a holistic approach to mental health and wellbeing and mental illness in the industry.

Treatments for the common mental illnesses are effective. Despite this only a small proportion of people with one of the common mental illnesses seek treatment. Barriers to treatment in the community and in workplaces relate to lack of knowledge about mental health and well-being and mental illness, symptoms and treatment, and stigma. In workplaces, and in particular in blue collar workplaces, the macho culture demonstrated by the "we're tough" attitude is a significant impediment to addressing mental health and well-being and mental illness.

There are no single solutions to addressing mental illness or promoting mental health and well-being in the workplace. It requires multiple strategies targeting individuals and the workplaces systems,policies and structures. There are existing policies which will support addressing mental illness in the workplace. Existing OH&S approaches to injury and illness in particular in relation to return to work have potential for application to employees returning to work after a mental illness. Moreover it requires a commitment from the industry to take action to strategically address mental health and well-being and mental illness, supported by a range of policies and programs, and where needed complemented by research to ensure that strategies are effective.

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