Suicide in Queensland's Commercial Building and Construction Industry

An investigation of factors associated with suicide and recommendations for the prevention of suicide.

FINAL REPORT

Australian Institute for Suicide Research and Prevention

ACKNOWLEDGEMENTS

This report was commissioned by a representative committee from Queensland's Commercial Building Construction Industry. The opinions expressed in this document are those of the authors, and not necessarily those of the Commercial Building Construction Industry (CBCI).

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EXECUTIVE SUMMARY

❖ The incidence and causal factors for suicide vary between industrial and occupational groups. Limited research has been undertaken in relation to suicide by specific occupation. Notably, the construction industry in Australia has received very limited attention in the evidence-based research literature, despite some media attention in recent years.

❖ Previous studies internationally have shown that construction workers tend to have a high suicide rate, but this is sometimes nullified when factors such as marital status and gender are taking into consideration.

❖ In the Queensland Commercial Building Construction Industry (CBCI), young employees (15-24 years) had very high suicide rates (58.6 deaths per 100,000 population). This was 2.39 and 1.93 times greater than the working-aged male population in Australia and Queensland, respectively.

❖ The working-aged male (i.e. 15-64 year olds) suicide rate in the CBCI remained significantly elevated across the entire seven years of investigation (1995-2001) when compared to Australian counterparts, but not against the Queensland cohort.

❖ CBCI suicides were centred in the more populous regions of Queensland (Brisbane City region (n=16), Outer Brisbane (n=14), Coastal (n=11), North & Far North (n=10), Mackay-Fitzroy (n=9), Darling Downs & Wide Bay (n=4), Western region no suicides).

❖ Psychological autopsy investigations and focus group discussions were conducted in a bid to understand the individual, industry, and work-home interface factors relevant in CBCI suicides.

❖ One-fifth of CBCI suicides were separated or divorced at the time of death, one quarter were single, and more than a third were in a marital or de facto relationship. Nearly two-thirds of CBCI suicides had consumed alcohol prior to ending their life, and 31.3% left a suicide note.

❖ Psychiatric diagnoses were reported in about one-sixth of suicide cases, with depression being the most prominent disorder (90.9%). There was evidence of an undiagnosed or untreated psychiatric disorder in an additional 20.3% of CBCI suicides.

❖ One quarter of CBCI suicide victims had a history of suicide attempts, with 15.6% attempting in the 12 months preceding their death. Almost half had communicated their suicidal intent in their lifetime.

❖ Alcohol-related problems (both violent and non-violent) were reported in more than one-third of cases. One-fifth were illicit drug users, with 10.9% being regular users. The most common drugs used were cannabis and amphetamines.

❖ More than half of all CBCI suicides had experienced relationship problems in the three months preceding death. Pending legal matters were also reported in almost 10% of cases. Multiple stressful life events in the three months preceding death were reported in 23.4% of CBCI suicides.

❖ CBCI suicide victims were more likely than their Queensland counterparts to have consumed alcohol prior to death, had a relationship problem in the preceding three months, and had multiple stressful life events leading up to their death.

❖ Young CBCI employees (15-24 years) were at elevated risk of suicide. Half had communicated their suicidal intent in the 12 months leading up to the suicide. Three-quarters had experienced relationship problems in the three months preceding their death, and they were more likely to be separated/divorced than other young Queensland males who died by suicide. Illicit drug use was common (41.7%), with 25% described as regular users.

❖ Focus groups were conducted with union delegates, QMBA representatives, and employees. Four major themes were revealed: Work conditions, interpersonal relationships, pressure, and suicide prevention.

❖ Long working hours were revealed as being a source of stress at work and at home. There appears to be a culture within the industry that endorses heavy alcohol use and bullying behaviours (directed towards apprentices specifically). The lack of job security was a cause of stress for employees. Due to the male dominance of the industry, workmates won't talk about their problems with their peers. Some CBCI members reportedly had financial management issues that placed a strain on their work and home situations.

❖ A series of recommendations for initiatives to help reduce suicidality and improve resilience within the industry are provided, based on the results revealed in the current and previous investigations.

BACKGROUND

Suicide is one of the ten leading causes of death worldwide, and fourth leading cause amongst those aged 15-44 years (WHO, 1999). According to the World Health Organization, each year, approximately 800,000 people take their own life, representing one suicide every 40 seconds.

In many countries across the world, the suicide rate tends to increase with age, with the highest risk groups being those aged 75 years and older (De Leo & Evans, 2004). This trend is not witnessed in Australia, where the rates peak in males in the age groups 25-44 years, and in females in the 45-54 year age group (ABS, 2004). In Australia, and globally, suicide rates peaked in the mid 1990s, with Australia experiencing its highest suicide rates in forty years in 1997 (14.7 per 100,000 persons). Rates have been in steady decline in Australia since that time, and for the year 2003, the suicide rates in Australia were 17.7 per 100,000 for males, 4.7 per 100,000 for females, and 11.1 per 100,000 for the general population.

Furthermore, in Queensland, the suicide rates tend to be about 15% greater than the Australian rates (ABS, 2004). The rate of suicide in Queensland has been higher than Australian rates for most of the last 35 years. The elevation in Queensland rates could be due to the large population living in regional, rural and remote areas in comparison to the rest of Australia.

General risk factors for suicide

Suicide is a complex, multidimensional phenomenon that has been associated with many correlates, antecedents and risk factors. Most of the time suicide risk factors are interactive and interdependent. They are factors which increase vulnerability or predisposition to suicidal behaviour, however, different populations may not necessarily share all the same risk factors (for example, risk factors for indigenous populations may differ to those in non-indigenous populations etc). Table 1 shows a list of 62 risk factors relevant for fatal and non-fatal suicidal behaviour compiled in a recent review by Plutchik (2000). As represented in this table, suicidal behaviour can be influenced by multiple factors and can have a social, environmental, biological, cultural or psychological basis.

Table 1

Risk factors for suicide and attempted suicide

Schizophrenia	Alcohol abuse
Depression	Drug abuse
Other mental illness	Family history of alcoholism
Personality disorders	Severe impairment in physical health
Hopelessness	Paranoid thinking (ideas of reference)
Number of life problems	Homosexual lifestyle
Recent psychiatric symptoms	History of previous suicide attempts
History of violent behaviour	Recent loss of a close attachment
Accepting attitudes towards suicide	Job problems
Impulsivity	Low CDF 5-HIAA (low dietary intake of tryptophan)
Number of family problems	EEQ alpha asymmetry
Number of physical symptoms	Low self-esteem
History of family violence	Low family support
Coping style of avoidance	Cynicism
Coping style of help seeking	Family conflicts
Persistent feelings of anger	Neuroticism
Persistent feelings of resentment	Psychoticism
Trait anxiety	Interpersonal aversiveness
Defence mechanism of regression	Anhedonia
Defence mechanism of displacement	Hostility
Suspiciousness	Antisocial traits
Rebelliousness	Low cholesterol blood levels
Aggressive behaviour to one's mother	Stressfulness of life
Rejection by one's father	Low blood glucose
Feelings of isolation and loneliness	Frequent mobility
Suicidal threats/attempts in friends/relatives	High assault behaviour in adolescence
Strong sex drive	Exposure to family violence
A large number of medical and neurological disorders in members of one's family	Poor reality testing
Early loss of mother or father	Sexual conflicts
Easy access to weapons	Dysthymia
Previous psychiatric treatment	Self-debasement

Although there are still some controversies among researchers and clinicians regarding predictors of suicidal behaviours, there are some risk factors that researchers agree are present in most suicides. Risk factors for sub populations, for example, occupational groups, may include risk factors which are unique to the particular workplace or position of employment.

Suicide by Occupational group

There is widespread speculation that suicide rates vary according to industrial and occupational group. The pre-eminent sociologist Emile Durkheim suggested that poorer people would have lower suicide rates due to having less to lose, and nothing to aspire to (1897/1951). While, having very little scientific evidence to support his claim, this theory has been utilised to explain high rates of suicide among "high-status" professionals such as doctors (Lester, 1992, cited in Stack, 2000). Following this logic, members of low-status industries such as construction should have low suicide rates; however, this is the exception rather than the rule. In fact, an inverse relationship appears to exist between occupational prestige and suicide risk (Boxer et al., 1995).

Research looking at suicide by occupational group often reveals contradicting findings between studies. For example, a review of research pertaining to police suicide, where 11 articles cite police officers at increased risk of suicide, 3 reported an average risk, and 4 indicated a low risk of suicide (Stack & Kelley, 1994). This highlights the inherent difficulties in investigating suicide by occupation.

The relationship between occupation and suicide generally comprises four factors: demographic details; pre-existing psychiatric morbidity; internal occupational stress; and access to lethal means (Stack, 2000).

Some occupations appear to have an elevated rate of suicide, but when demographic variables such as gender, age, ethnicity, marital status, level of education, and employment status are controlled for, the risk of suicide disappears. That is, suicides within occupations may be a product of the people who work in those jobs, and the characteristics that they bring to the job.

Pre-existing psychiatric morbidity increases the risk of suicide, and is controlled for in some occupations by rigorous screening prior to engagement in employment. Police and emergency services workers are prime examples of this screening process. Most industries, however, have no such screening processes. There is a school of thought that some persons with pre-existing psychiatric condition select certain jobs, which is why those professions may appear to have increased suicide rates (e.g. psychiatrists, artists) (Andreason, 1987; Stack, 1996; Wasserman, 1992).

Internal occupational stress can be a result of client dependence, status integration, social isolation, or other factors (Stack, 2001; Wasserman, 1992). Client dependence refers to the extent that workers rely on clients to provide gainful employment. Sole business owners are often directly dependent on clients and thus at greater risk for suicide, whereas machine operators and postal workers are less influenced (Stack, 2001). Status of integration implies that persons in statistically infrequent role sets (e.g. female chemists, female labourer) should have excessive suicide rates compared to those with "normal" role sets (e.g. male mechanic, female schoolteacher) (Seiden & Gleiser, 1990; Stack, 1995). Economic conditions and influences are additional industry related stressors that are important in predicting suicide (Lampert et al., 1984), as is reliance on the weather for livelihood. Job insecurity, poor pay, work overload, low job prospects, bullying/harassment all increase the risk of occupational stress that may be involved in suicide (Kposowa, 1999; Warr, 1992).

Access to lethal means of suicide is commonly reported in relation to occupational suicide, especially for medical professionals (e.g. doctors, pharmacists, dentists) and farmers. Medical practitioners have knowledge of toxicity levels of various drugs, and usually have instant access to them (Wasserman, 1992). In contrast, farmers typically have access to firearms and pesticides, which are highly lethal means of suicide, but are tools of their normal working environment (Hawton et al., 1998).

Specific Occupations (non-construction)

There is limited research into suicide rates and contributing factors for specific occupations. Two examples where more reliable research has recently been conducted include investigations of suicide rates and causal factors for farmers and doctors. While suicide rates and related factors for doctors, in particular, vary considerably from construction workers, there are some similarities between farmers and construction workers in terms of long working hours, reliance on weather and economy, and the fact that people are often self-employed.

Doctors have been shown to have an elevated risk for suicide (Hawton et al., 2000), with a recent study showing that suicide was the only cause of death where the risk for

physicians was greater than the general population (Torre et al., 2005). Psychological autopsy reports of doctor suicides reveal that occupational (71.4%), mental health (62.9%) and relationship problems (40%) are the most prevalent problems experienced in the year preceding death (Hawton et al., 2004). The most prevalent work-related factors reported were complaints against the doctor, being overworked, and complex administrative tasks. The authors of this study report that the governing body is looking at ways to reduce working hours for young hospital doctors, which may have an impact on the rates of suicide in this occupational group. Method of suicide by doctors varies from the general population, with more cases of poisoning and cutting in both male and female doctors. It is suggested that knowledge of how to use these methods, and the availability of drugs contribute to this excess (Hawton et al., 2000).

Farmers are also a high-risk occupational group for suicide (Page & Fragar, 2002). Work-related factors are commonly reported in relation to farmer suicide, with long-working hours, no holidays/breaks, and the unpredictability of the weather specifically cited (Malmberg et al., 1997). Work-related problems may also contribute to marital/familial problems and illness (both physical and mental) to raise the risk of suicide in this group. Malmberg and colleagues (1999) reported that among farmers who were working at the time of their death, mental health problems were most prevalent (70%), followed by occupational problems (52%), relationship problems (41%), and physical health issues (38%). Financial difficulties were also reported to play a large role in suicide among this occupation. Other studies have reported that being male was associated with suicide in farmers, and importantly, attitudinal barriers in seeking-help exist among Australian farmers (Judd et al., 2005). Failure to seek help for problems is demonstrated by farmers being more likely to present to health services with purely physical symptoms in the three months preceding suicide than non-farmers (Booth et al., 2000).

Construction Worker suicide

In Queensland, the recent Royal Commission into the Building and Construction Industry reported that in a four month period, nearly half (17 of 41: 41%) of all death claims made on behalf of commercial building workers were for suicide deaths (Cole, 2003). Suicide rates within and between specific occupational groups have not been comprehensively

investigated in Australia. Research so far has focused on 'classes' of occupation, for example blue-collar vs. white-collar jobs. Unskilled and semi-skilled blue-collar manual occupations tended to have high suicide rates (Hassan, 1996).

A study conducted in Victoria investigated suicides related to work factors between the years 1989 and 2000 (Bottomley et al., 2002). Findings indicated that 19% of all suicides were employed in trade or technician occupations, with an additional 16% working in unskilled positions (including builder's labourers). Another study investigated the socio-economic differentials (including marital and occupational status), and found that suicide rates were higher among male tradesmen and labourers, when compared to the state suicide rate (Burnley, 1995). However, the relatively low incidence of suicide in this study resulted in tradesmen and labourers being combined with other occupational groups including miners, production workers, and craftsmen. Therefore, it was impossible to extrapolate the true magnitude of suicide among construction workers *per se*.

Also at the international level there is limited research on suicide among construction workers. While some studies have been conducted in Hong Kong (Yan, 2000), Ireland (Daéid, 1997), Finland (Notkola et al., 1993) and Sweden (Jarvholm & Stenberg, 2002a), the majority of the available research has been conducted in the USA, where suicide rates in many construction occupations appeared as elevated in comparison to the general male population and some industry comparison groups (Boxer et al., 1995; Kposowa, 1999; Lampert et al., 1984; Liu & Waterbor, 1994; Stack, 1995; 1999; Stern & Haring-Sweeney, 1997). For instance, labourer suicide rates were up to five times the USA national average (Stack, 1995), with rates especially high for skilled manual workers (carpenters, plumbers, electricians, and machinists) and semi-skilled (labourers and welders) (Stack, 1999). However, when socio-demographic variables such as gender, marital status, and age were controlled for, construction workers appeared no longer at increased risk of suicide (Stack, 1995; 2001). These important findings suggest that the risk of suicide within the construction industry may be related to the personal factors of the individual employee, rather than factors related to the industry itself (Stack, 1999).

However, in the Kposowa study (1999), construction industry workers who were at five-times greater risk than finance industry employees, remained at an elevated risk of suicide (2.6-fold) even after controlling for age, gender, marital status, race, education, geographic location, and income. The researcher suggested that the characteristics of the industry (e.g. low income, work stress) may place people at risk (Kposowa, 1999).

Long work hours and heavy workload was strongly associated with work-related suicides in a range of Japanese industries, including construction (Amagasa et al., 2005). Furthermore, work overload, harassment (Kposowa, 1999), non-permanent positions impacting job security (Jarvholm & Stenberg, 2002b), and lack of social integration among employees (Berkman et al., 2004) have also been suggested as contributing factors for suicide within the construction industry.

It has also been suggested that working in the construction industry may be indirectly associated with increased rates of suicide, through escalating marital strain among employees (Stack, 2001); given the significant contributing role that relationship and marital break-up/conflict has on suicidal behaviour (Kposowa, 2000). However, more research is required to clarify the causal link between the stressors of work and home, and mental health problems and suicide (Stack, 2000; Wilhelm et al., 2004).

In addition to the finding that suicide risk differs *between* occupations generally, some studies have concluded that different occupations *within* the construction industry have different risk levels of suicide. For example, painters (Steenland & Palu, 1999), electrical workers (Robinson et al., 1999) and construction operating engineers (Stern & Haring-Sweeney, 1997) had an elevated risk of suicide in comparison to the general population. In contrast, no elevated risk of suicide was revealed for ironworkers (Stern et al., 1997) and roofers and waterproofers (Stern et al., 2000). In Sweden, electricians and woodworkers had a decreased risk of suicide in comparison to the general population (Jarvholm & Stenberg, 2002a).

These findings, whilst modest, suggest that suicide risk in the construction industry is higher than suicide in other occupations. Additionally, suicide risk *within* the construction industry may differ according to different and specific worker roles/positions. What is not clear from these findings to date is whether the causal factors for suicide within the

construction industry are work-related, personal or individual-related, or a combination of work and home related factors. Indeed, the potential interacting contributions of all of these factors in causing suicide within the construction industry is not yet known.

The subsequent review undertakes to explain how the current study has sought to address and determine the outcomes to such problems.

Project Phase One: Review

The Australian Institute for Suicide Research and Prevention (AISRAP) at Griffith University were commissioned to conduct an investigation of the incidence of suicide within the Queensland Commercial Building Construction Industry (CBCI). The CBCI was concerned over revelations that 41% of all deaths within in the industry were due to suicide, as reported in the Cole Royal Commission (Cole, 2003).

Industry representatives, including unions, superfund administrators, government representatives, and master builders, committed to try to reduce the rate of suicide within the CBCI. In order to recommend suicide prevention strategies specific to the construction industry, it was important to first establish whether the risk of suicide for builders was elevated above that of the general population[1]. This was achieved by analysing death records from industry databases (e.g. BUSS(Q), AUST(Q), BERT), calculating suicide rates, and comparing them to relevant populations. Cause of death from these sources was sometimes ambiguous (e.g. drug overdose), so all cases were cross-referenced against the Queensland Suicide Register, a database of all suicide deaths in Queensland from 1990 to present.

For the period 1995 to 2001, 65 suicides were identified as being *beyond reasonable doubt* or *probable* suicide, an average of 9.3 suicides per year. All but 3 were by males, so all analyses focused on the male gender only. The average age at time of death was 34.6 years. Hanging was the most common method (40.3%), followed by motor vehicle carbon monoxide poisoning (27.4%) and firearms/explosives (17.7%). Suicide mortality rates peaked in 1998 at 54.9 deaths per 100,000 persons, with the rate for the entire seven-year period being 37.1 per 100,000. The CBCI suicide rate was 1.75 and 1.52

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[1] Appendix A includes the final report for Phase One.

times greater than the general Australian and Queensland male suicide rates, respectively. When compared against similarly skilled occupations (Electrical and Electronic tradesperson, Factory Labourers) there were no significant differences in suicide rates, however the data for the comparison occupations was of questionable standard as it came directly from the Australian Bureau of Statistics and could not be cross-checked against the QSR or industry databases.

Aims of this investigation

The investigation of suicide in the building construction industry extends beyond determining the incidence of rates, as reported above. Further investigation of possible causal factors for suicide is required in order to develop recommendations for suicide prevention. Therefore, the phase of investigation reported here aimed to:

- Examine suicide rates within the CBCI by specific age groups (e.g. 15-24 years, 25-34 years) to ascertain whether some groups were at heightened risk of suicide
- Examine existing standard psychological autopsy information for CBCI suicides
- Compare psychological autopsy information between CBCI and the rest of Queensland working-age male suicide victims
- Conduct focus groups with representative samples of members of the CBCI to understand why people within the industry might consider taking their own life
- Collate information from psychological autopsy forms and focus group discussions to understand the role or work, home, and work-home interface factors in suicide within the CBCI
- Provide recommendations, based on the evidence collected, for industry-specific prevention, intervention, and postvention initiatives

METHODOLOGY

Suicide rates

Crude suicide mortality rates and Standardised Mortality Ratios (SMRs) were calculated for Phase One of this project - *Investigating the incidence of suicide in the Building and Construction Industry*. Crude and age-specific suicide rates and SMRs are reported in the current report. A brief explanation of how these were calculated is included. For more detailed information, please refer to the Phase One report (AISRAP, 2004) in Appendix A.

In order to calculate the incidence of suicide, a variety of data sources were reviewed, including those from industry databases (i.e. insurance companies that specialise in workers from the CBCI), the Australian Bureau of Statistics (ABS), and the Queensland Suicide Register (QSR). Industry databases include both compulsory superannuation and voluntary redundancy schemes. Information within these schemes included personal information (name, date of birth, gender, etc), cause of death, and date of death. The QSR is a databank that stores information on all completed suicides in Queensland, from 1990. The QSR holds data from post-mortem and toxicology reports, and psychological autopsy interviews conducted by police officers with the next-of-kin of suicide victims.

Data was collected for the period 1995 to 2001. A list of all active CBCI members (i.e. those who had paid fees in the six months preceding death) who had died during the study period was obtained from the industry databases. This list was cross-referenced by surname against the QSR to isolate definite suicides. The QSR includes three levels of classification: *Beyond Reasonable Doubt* (BRD); *Probable*; and *Possible*. Defining criteria for this classification are cited elsewhere (De Leo & Heller, 2004). The QSR inclusion criteria for suicide features cases that are identified as BRD and Probable suicides, to ensure that the information is as reliable as possible. The QSR criteria are based on research criteria, whereas official statistics rely on sufficient legal evidence to label a death as suicide *beyond reasonable doubt*. Even with these two levels of inclusion, the identified suicide rates are conservative and researchers acknowledge this underestimation of true suicide rates (Sampson & Rutty, 1999).

The population of the CBCI was determined by the number of active members of respective industry funds. With information obtained from two superannuation funds and one redundancy fund, it was possible for persons to be members of more than one fund, especially given that superannuation schemes are mandatory for employees, whereas redundancy schemes are voluntary. Therefore, obtaining the active membership populations from each of three funds would reveal an overestimation of the CBCI population. To counter this, the total active membership populations from the two superannuation funds were taken, as well as a proportion (20%) from the lone redundancy firm and a conservative estimate was made after consultation with fund management. From 1995-2001, there were 167,103 active members in the Commercial Building Construction Industry, increasing from 21,158 members in 1995 to a peak of 26,577 in 2000.

Psychological Autopsy

Psychological autopsy investigations try to recreate the circumstances leading up to the suicide (De Leo & Pouliot, in press). Typically, psychological autopsy investigations involve a trained clinical interviewer collecting information about the deceased, from the next of kin (usually a family member or significant other). In Queensland, psychological autopsy forms are completed for every potential suicide, as part of the maintenance of the Queensland Suicide Register. As partners with the Australian Institute for Suicide Research and Prevention in this ongoing study, Queensland Police Service personnel complete the psychological autopsy forms following interviews with the deceased's next-of-kin as part of their investigation of the death. For the current study, standard psychological autopsy forms were used, which included questioning relating to socio-demography (e.g. marital status, living arrangements), psychopathology (e.g. psychiatric illness, treatment received, medication, drug and alcohol use etc), history of suicidality (e.g. history of suicide attempts, methods used etc), and recent stressful life events (e.g. work, losses, relationship problems, etc). Specific construction industry-related questions were not included in the psychological autopsy form.

Pre-existing psychological autopsy data from CBCI members (stored in the QSR) was identified, and a profile of industry suicides was developed. This information was

compared against working-aged male suicide victims who were not active CBCI members when they died between 1995 and 2001 (n=2,605).

Focus Groups

Focus groups were conducted to examine possible work-related stressors that may contribute to suicide in the CBCI. A total of 22 industry personnel (all male) participated in three (3) focus group sessions of different sub-populations (general construction workers, onsite union delegates, and Queensland Master Builders Association [QMBA] representatives). These three samples were chosen to provide a representative cross-section of opinion from within the industry. Between 6 and 8 persons participated in each focus group session that investigated the possible causal factors for suicide within the industry, reasons for living, and suicide prevention initiatives. Volunteers were sought via advertisements at one large building site centrally located in Brisbane, Queensland, and participants were randomly selected from a larger pool of volunteers. Focus group sessions took place between August and October 2004, were facilitated by two researchers (Jacinta Hawgood & Travis Heller), and lasted approximately 90-minutes. All sessions were audio-taped with the consent of participants, and data transcribed. Union delegates were significantly older than employees (47.7 vs. 33.8 years; $\underline{t}$(12)=2.73, $\underline{p}$=0.018) and had more experience in the industry (29.3 vs. 14.8 years; $\underline{t}$(12)=2.70, $\underline{p}$=0.019). There were no significant differences between union delegates and QMBA representatives, or employees and QMBA representatives. Characteristics of focus group participants are shown in Table 2.

Table 2

Characteristics of focus group participants

	Average age (range)	Years in industry (range)	Completed apprenticeship (%)
Employees (n=8)	33.8 (20 – 51)	14.4 (2 – 34)	50%
Union reps (n=6)	47.7 (40 – 55)	29.3 (20 – 40)	16.7%
QMBA reps (n=8)	45.6 (25 – 55)	25.0 (8 - 35)	50%

Two focus groups (unions & employees) took place at Union headquarters in August 2004, with the QMBA session taking place at Master Builders House in October 2004. In all sessions, all members were briefed about and asked to contribute to the ground rules of session for example; maintaining confidentiality, free to leave at any time, and no interrupting others etc. The participants were assured of their anonymity/confidentiality and informed about non-disclosure of names outside the group session. The participants were allowed to ask questions about the *process* of the Focus Group and offered debriefing during and after the session. An introduction was than presented by the researchers and consent forms were offered to participants for signature. Participants were informed they had the right to withdraw at anytime and permission was gained from the group for audio-taping of the session. For this reason, group data only was reported and analysed. The main groups of questions focused around why somebody working in the industry would take their own life, reasons for living (i.e. what would stop someone who was thinking about suicide actually attempting to take their own life), and what should be done to prevent people from suiciding. At the end of the sessions, referrals for support groups were offered. The consent form and focus group procedure are provided in Appendix B.

Qualitative information from the focus groups was coded and analysed using NVivo software Version 2.0.161.

RESULTS

Suicide Rates

Phase One of this investigation revealed the crude suicide rates for males in the Commercial Building Construction Industry (CBCI) for the period of 1995 to 2001. These rates were compared against the general male populations from Queensland and Australia, and against similarly skilled occupation groups (i.e. factory labourers, electric workers).

The statistics that were outlined in the previous report have been re-examined in the context of reflecting different rates in various age groups within the industry. In addition, for two cases that were originally recorded as *possible* suicide, more information was subsequently gathered, which resulted in this data being reclassified as *probable* suicide. Therefore, across the seven-year period, there were a total of 67 suicides (64 were male, three were female) that were deemed to have sufficient evidence to be regarded as suicide cases. Consequently, across the study period, there were on average 9.6 suicides per year.

The research team obtained an age breakdown by ten-year age groups (e.g. 15-24 years, 25-34 years, etc) from industry sources. With access to age breakdown, further refinements of originally reported statistics were conducted (not reported in Phase One Final Report), to determine working-aged suicide rates (i.e. 15-64 years). The new figures are shown in Table 3. By excluding the (relatively) low rates of suicide from the non-working age population of Australia and Queensland (i.e. under 15 years, and over 65 years), the standardised mortality ratios were lower across all years of investigation. In comparison to Australian rates, across the entire period, CBCI employees were 39% more likely (statistically significant) to die by suicide than the working-aged male population.

Based on working-aged populations, the standardised mortality ratios (SMRs) between CBCI and Australia and Queensland males was somewhat diminished. In fact, the SMR only remained significant for the entire period in comparison to Australia. Nevertheless, rates were up to 82% greater in CBCI members than general working aged males in

1998. Furthermore, in 1999, CBCI members were 63% more likely to die by suicide than their Queensland counterparts.

Table 3

Comparison of CBCI rates with Australian and Queensland male rates, 15-64 years, 1995-2001

Year	CBCI	Australia		Queensland	
	Rate	Rate	SMR (95%CI)	Rate	SMR (95%CI)
1995	-	27.2	-	32.3	-
1996	-	27.3	-	35.4	-
1997	-	29.9	-	32.9	-
1995-1997	30.4	28.1	1.08 (0.66-1.67)	33.5	0.91 (0.55 – 1.40)
1998	54.9	30.2	1.82 (0.97-3.11)	35.5	1.55 (0.82 – 2.64)
1999	48.0	27.1	1.77 (0.92-3.10)	29.4	1.63 (0.84 – 2.85)
2000	37.6	25.0	1.51 (0.72-2.77)	30.3	1.24 (0.60 – 2.28)
2001	34.5	26.0	1.33 (0.61-2.52	29.2	1.18 (0.54 – 2.24)
Total	38.3	27.6	**1.39 (1.07 – 1.77)**	32.2	1.19 (0.92 – 1.52)

- Rates were not calculated because there were less than 10 deaths; hence a combined rate was computed. Consequently, SMR's were not calculated for these individual years.

The research team obtained an age breakdown from industry sources that enabled suicide rates to be calculated for each ten-year age bracket (e.g. 15-24 years, 25-34 years, etc). Population figures and suicide rates (per 100,000 persons) by age group are shown in Table 4. Suicide rates peaked in the younger aged bracket (15-24 years), at a rate of 58.6 deaths per 100,000 people.

Table 4

Age-specific Suicide Rates in CBCI, 1995-2001

Year	Suicides	Population	Rate
15 to 24 years	12	20481	58.6
25 to 34 years	22	57037	38.6
35 to 44 years	21	54323	38.7
45 to 64 years	9	35262	25.5
45 to 54 years	7	29066	-
55 to 64 years	2	6196	-
Total	64	167,103	38.3

- Rates calculated on less than 10 deaths should be interpreted with caution

Standardised Mortality Ratios (SMRs) were calculated against age-matched male cohorts from the Australian and Queensland general population (Table 5). The most striking feature of these SMR calculations is the more than two-fold elevated risk of suicide by 15-24 year old CBCI employees against young Australians, with the rate being almost double compared to Queensland youth. This clearly demonstrates that the elevated risk for suicide in the CBCI is due to the very high suicide rates in those younger employees.

Table 5

Comparison of CBCI rates with Australian and Queensland rates by age group

	CBCI	Australia		Queensland	
Age	Rate	Rate	SMR (95%CI)	Rate	SMR (95%CI)
15 to 24	58.6	24.5	2.39 (1.24 – 4.18)	30.4	1.93 (1.00-3.37)
25 to 34	38.6	35.3	1.09 (0.68 – 1.65)	40.7	0.95 (0.59-1.44)
35 to 44	38.7	30.1	1.28 (0.80 – 1.96)	34.9	1.11 (0.69-1.69)
45 to 54	-	23.7	-	28.0	-
55 to 64	-	20.6	-	22.5	-
45-64yrs	25.5	22.5	1.14 (0.52 – 2.16)	25.8	0.99 (0.45 – 1.88)
15-64yrs	38.3	27.6	1.39 (1.07 – 1.77)	32.2	1.19 (0.92 – 1.52)

- Rates not calculated because there were less than 9 deaths

Locality

Most suicides were recorded in the Brisbane City region (n=16), followed by Outer Brisbane (n=14), Coastal (n=11), North & Far North (n=10), Mackay-Fitzroy (n=9) and Darling Downs & Wide Bay (n=4). There were no suicides recorded in the Western region of Queensland. Figure 1 shows the geographic regions of Queensland, according to the Australian Bureau of Statistics Australian Standard Geographic Classification.

Figure 1
Regions of Queensland
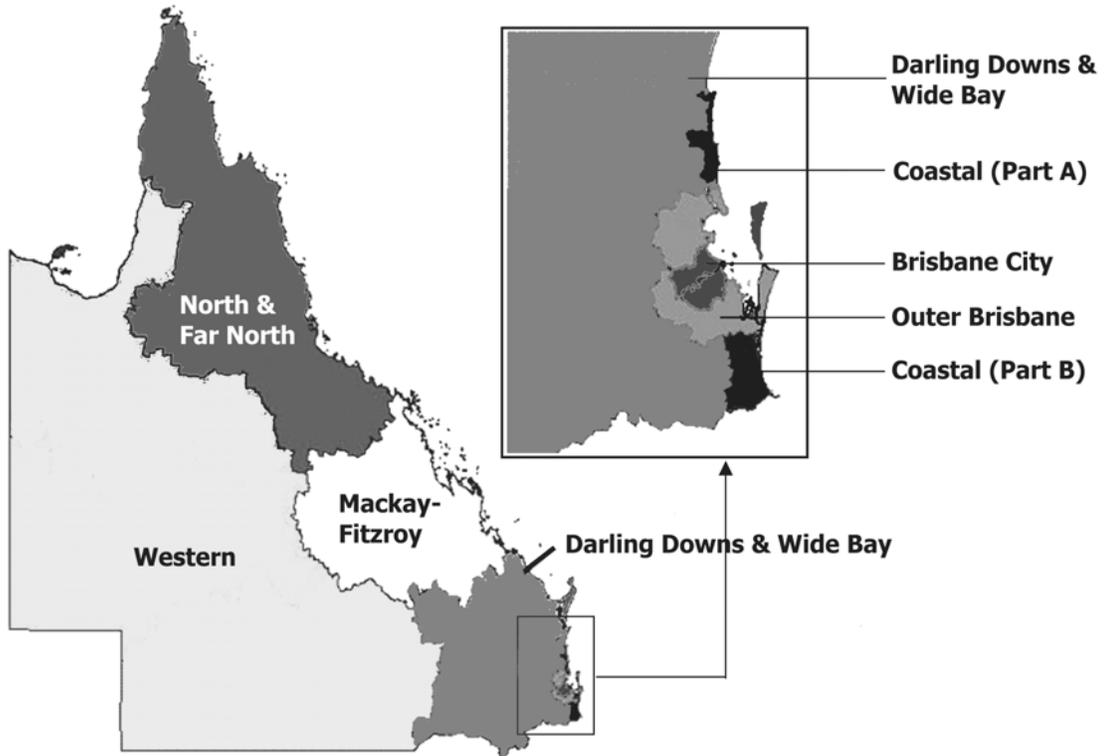
Psychological Autopsy

A review of psychological autopsy information was undertaken to understand the circumstances surrounding the death of CBCI employees. This section outlines some of the socio-demographic, psychopathological, and medical factors, as well as recent life events that may have contributed to the person's decision to take their own life. The subsequent section looks at comparisons on some of these variables between CBCI employees and the rest of the Queensland male working-aged population.

General CBCI population

Marital status was available for 52 of the 64 CBCI cases, with more than one third being in married or de facto relationships at the time of suicide (34.4%). One quarter were single, 20.3% were separated or divorced, and one person (1.6%) was widowed. Seventeen people lived alone (26.6%), 13 with a spouse (20.3%), nine with friends/relatives (14.1%), seven with parents (10.9%), one was homeless (1.6%), one was temporarily away from home (1.6%), and there were 16 persons where living arrangements were not known (25.0%).

Most of the suicides were by persons with Caucasian ethnicity (n=54; 84.4%), with two Indigenous persons (3.1%) and 8 cases where ethnicity was not reported (12.5%). Australia was the country of birth in 40 cases (62.5%), with 5 from New Zealand (7.8%), four from England (6.3%), one each from Denmark (1.6%) and Papua New Guinea (1.6%), and 13 cases remained unknown (20.3%).

Almost two-thirds of CBCI suicide victims had consumed alcohol prior to their suicide action (59.4%), and 31.3% had left a suicide note. The majority of suicides took place at the victim's own residence (n=43; 67.2%), with other suicide sites including: parks/bushland (n=6; 9.4%); other urban sites (e.g. carparks, roadside) (n=5; 7.8%); prison (n=4; 6.3%); at the workplace (n=2; 3.1%); and rivers/beaches (n=2; 3.1%).

Physical Health

Physical disorders were reported for seven (7) CBCI suicide victims. Five persons had one physical ailment, while two persons had two physical conditions. These disorders included: acquired brain injury; heart/artery disorder; liver disorder; blindness; diabetes; major trauma (e.g. fracture); and chronic pain.

Mental Health

Psychiatric diagnoses were recorded for eleven (11) CBCI suicide victims, representing approximately one-sixth (17.2%) of all CBCI suicides. There were ten cases of unipolar depression, and one of 'vague' disorder. In addition, there were 13 cases (20.3%) where the next-of-kin reported evidence of undiagnosed or untreated psychiatric conditions. Of those people with a psychiatric disorder (n=11), six persons (54.5%) had received treatment from a general practitioner, six (54.5%) had received outpatient psychiatric care, five (45.5%) had received inpatient treatment in the past, and two (18.2%) received treatment from another service. In the three months preceding suicide, a mental health professional was consulted by five CBCI suicide victims (45.5%).

History of suicide attempts and communication of intent

Almost half of CBCI suicides had communicated their suicidal intent in their lifetime (n=28; 43.8%), with more than one third doing so in the 12 months preceding death (n=23; 35.9%). One quarter had previously attempted suicide in their lifetime (n=16), with ten attempting in the last 12 months (15.6%). Methods used in previous attempts included drug overdose (n=7; 43.8%), hanging (n=4; 25.0%); motor vehicle exhaust inhalation (n=2; 12.5%), and other methods (n=3; 18.8%). Ten of sixteen (62.5%) previous attempters received treatment after their last attempt. Eight employees (12.5%) had been exposed to suicide by a member of their family or social group.

Alcohol and substance use

Alcohol usage was known for 43 of the 64 CBCI suicides. Five cases virtually never used (11.6%) alcohol or other substances and 23 cases used with no cause for concern (53.5%). The remaining 15 cases (34.9%) reported violent or non-violent problems caused by alcohol use. Thirteen CBCI suicide victims were described as illicit drug users (20.3%), with seven (10.9%) being regular users. The most common drugs used were cannabis (n=10; 15.6%) and amphetamines (n=5; 7.8%).

Life events in the three months preceding suicide

Table 6 shows the prevalence of significant life events that may have contributed to the decision to suicide among the 64 CBCI suicides between 1995 and 2001. Relationship problems were the most commonly reported life event, with more than half of all CBCI

suicide victims having relationship problems, in the form of separation or conflict, in the three months preceding death. Almost one quarter (23.4%) had more than one life event in the three months prior to suicide.

Table 6

Life events in the three months preceding suicide

Life event	Number	Percentage
Relationship problems	34	53.1%
Pending legal matters	6	9.4%
Financial problems	4	6.3%
Conflict	3	4.7%
Recent/pending unemployment	3	4.7%
Work problems	3	4.7%
Bereavement	2	3.1%
Child custody disputes	2	3.1%
Other life events	6	9.4%
Multiple life events	15	23.4%

Comparison of CBCI and Queensland suicides

CBCI suicides represented 2.4% (64 out of 2,669) of all working-aged male suicides in Queensland over the period 1995 to 2001. The average age of male suicides from the CBCI was 34.6 years, with a 95% confidence interval from 32.2 to 36.9 years, which was not significantly different from non-CBCI Queensland suicides (35.9 years, 95%CI 35.4 to 36.4, t(2667)=0.87, p=.382, n.s.).

The most common methods of suicide among CBCI members and Queensland males respectively are shown in Figure 2. The choice of method for suicide in the CBCI is reflective of the overall pattern of method for suicide by Queensland males, although CBCI had a non-significantly higher proportion of motor vehicle carbon monoxide poisoning deaths (χ^2(4)=2.49, p=.65, n.s.).

Figure 2

Methods of suicide by CBCI and Queensland males (percentages)
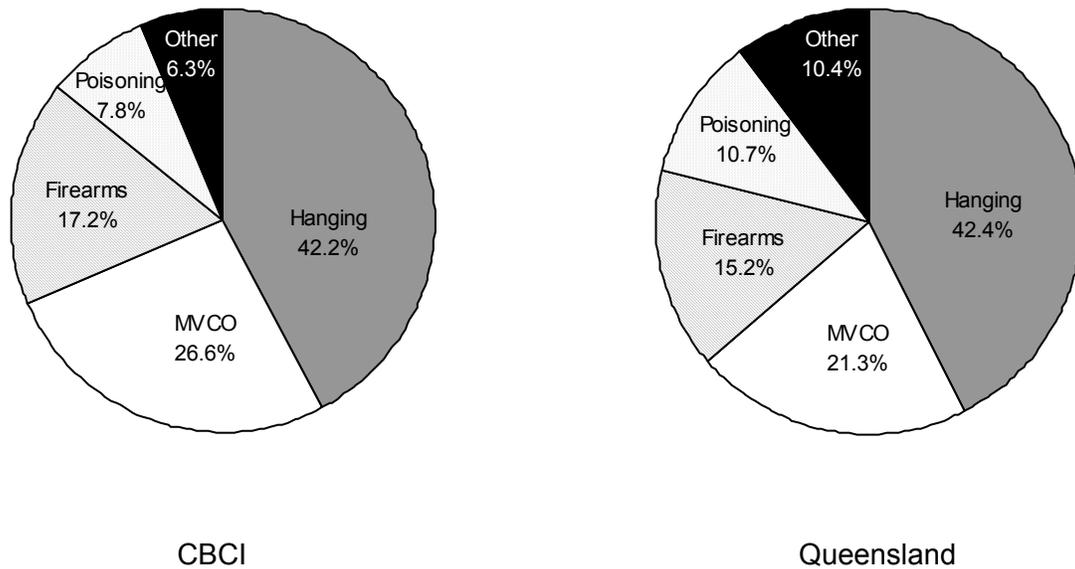
CBCI   Queensland

CBCI suicides were more likely than Queensland counterparts to have consumed alcohol preceding suicide (59.4% vs. 42.0%, $\chi^2(2)=7.86$, $\underline{p}=0.020$), have had a relationship problem in the three months prior to death (53.1% vs. 29.5%; $\chi^2(1)=16.60$, $\underline{p}<0.001$), and had multiple stressful life events preceding suicide (66.1% vs. 51.7%, $\chi^2(1)=5.04$, $\underline{p}=0.025$). In addition, CBCI suicides had more alcohol related problems (23.4% vs. 17.4%; $\chi^2(3)=5.82$, $\underline{p}=0.121$, $\underline{n.s.}$), and were less likely to have consulted a mental health professional for a psychiatric condition in the three months preceding death (7.8% vs. 17.3%, $\chi^2(2)=4.20$, $\underline{p}=0.122$, $\underline{n.s.}$), however these differences did not reach statistical significance.

Young CBCI suicides (15-24 years)

There were 12 suicides among CBCI employees aged 15-24 years during the period of 1995-2001, an average of 1.7 per year. The relatively low magnitude of suicides in this age group prevents comprehensive investigation of possible related factors, however given that this cohort within the CBCI is about 2-times more likely to die by suicide than

the general male population in both Queensland and Australia, a preliminary descriptive analysis is included below.

The majority of suicides were single (n=7; 58.3%), with 25.0% being separated (n=3), and marital status unknown for two cases. Most suicides were by Caucasians (n=10; 83.3%), with one Indigenous (8.3%) and one of unknown ethnicity (8.3%).   Country of birth was Australia for two thirds (n=8; 66.7%), with others coming from England (n=1; 8.3%) and New Zealand (n=1; 8.3%) with two unknown (16.7%).

Suicides were spread throughout Queensland, with three each in Coastal areas (25.0%) and North & Far North (25.0%), two each in Brisbane City (16.7%) and Outer Brisbane (16.7%), and one each in Darling Downs & Wide Bay (8.3%) and Mackay-Fitzroy (8.3%). The victims' own residence was the site of half of the young person suicides (n=6), with two being in bushland/parks and other urban spaces, and one each at workplace and prison.   Alcohol was consumed prior to suicide in 50% of cases (n=6), and a suicide note was left by two people (16.7%).

Physical conditions were not reported by this younger cohort, and there was only one case of psychiatric diagnosis (unipolar depression). However, four other cases (33.3%) had evidence of untreated psychiatric disorders.   Half of all CBCI young suicides had communicated their suicide intent in the 12 months preceding their death (n=6), and only one had a history of suicide attempts (8.3%), who used cutting as their previous method.

Alcohol was used without problems in five cases (41.7%), and was known to have caused problems in three cases (25.0%). Five young CBCI suicide victims were known illicit drug users (41.7%), with three (25.0%) described as regular users. Cannabis (n=4; 33.3%) and amphetamines (n=2; 16.7%) were the drugs of choice in this cohort.

Three-quarters (n=9; 75.0%) of this sample had relationship problems in the three months preceding suicide. The only other life events reported were work problems (n=1; 8.3%) and "other" (n=1, 8.3%).

Comparison of CBCI and Queensland suicides (15-24 years)

The twelve CBCI suicides represented 2.1% of all Queensland male 15-24 year old suicides across the study period (n=562). Differences between CBCI and QSR youth were revealed in: relationship problems preceding suicide (75.0% vs. 27.2%, $\chi^2(1)=13.24$, p<0.001); being separated or divorced (25.0% vs. 5.0%, $\chi^2(3)=10.39$, p=0.016); and, evidence of untreated psychiatric conditions (33.3% vs. 9.8%, $\chi^2(2)=7.96$, p=0.019). Differences that didn't reach statistical significance were reported for: alcohol related problems (25.0% vs. 18.3%; $\chi^2(3)=6.95$, p=0.073, n.s.); having multiple recent stressful life events (75.0% vs. 53.3%; $\chi^2(1)=2.22$, p=0.136, n.s.); communicated suicide intent in lifetime (58.3% vs. 34.0%; $\chi^2(2)=3.17$, p=0.205, n.s.); and current/past treatment for psychiatric disorder (8.3% vs. 22.3%; $\chi^2(2)=2.76$, p=0.251, n.s.).

Focus Groups

Material from the three focus groups was organised within 4 major themes: Work Conditions; Interpersonal Relationships; Pressure; and, Suicide Prevention. These four main themes were broken down further into a series of sub-themes. Sub-themes sometimes overlapped between the main themes, and were important in two or more themes; this was done so as to gain a thorough understanding of the area of enquiry. Table 7 provides an overview of the themes, sub-themes, and exemplar quotations from focus group participants.

Work conditions

Problems involved in work conditions were widely communicated, and were discussed in relation to finances, management, discussing problems with peers, recreation time, bullying, and employment security. Several participants raised the role of these in the development of depression and suicide. It was suggested that pressure at work, and pressure at home, created discontent as workers overextended themselves so as to maintain their position. Several participants commented it was to the exclusion of their family life. Participants also thought that management did not assist in creating a positive work environment, further adding to the discontent of people in the industry.

Long working hours

It was suggested that the long working hours, were a large factor in suicides. Long working hours led to few hours at home and excessive stress on individuals and their families, as workers attempt to provide financial support to their families. As well as extended working hours, long transport periods to reach places of work was nominated as a problem. Because of lack of job security, as soon as employees finish one job, they have to take another job immediately, without a break or holiday, even if they have been working consistently for several months. The amount of pressure in finishing jobs on time also plays a part, in sacrificing Rostered Days Off and weekends, and in enjoying recreation time with their families.

Alcohol and drugs

Drugs and alcohol were also considered a major issue in the culture of the industry as people try to compete with one another in alcohol consumption. Alcohol use was

reported as a prominent activity after hours and on weekends, as it alleviated the stress associated with working in the construction industry. It was stated that alcohol was like other drugs, in that it would take away problems temporarily, only for them to return when the physical effects subsided. It was viewed that marijuana was prevalently used in certain specific jobs within the industry more than other drugs, but intravenous drugs were becoming increasingly common.

Male Dominance in the Industry

It was noted that there were very few females in the industry. It was stated that a lot of men, consequently, did not know how to treat women. The relationship between family and work life was again reinforced, and the difficulties in maintaining financial commitments as well as commitments to the wife and family. It was suggested that wives did not understand the pressure of the industry, with women at home reportedly needing to be educated on how treat their husbands.

Job Security

There were several comments relating to the change in outlook of young people in the industry, that is young people no longer saw a future, and were not adapting to the tough climate of the building industry. While the participants were all full time employees, they stated this did not offer them security, and they felt disposable. The constant fear of redundancy meant that employees had to overextend themselves to sustain their employment. The difficulty coping with job security as well as external commitments such as relationships and families was highlighted. The weather and the economy were also seen as threats to secure employment. Moving cities/ interstate or taking an unskilled position (i.e. demotion) were considered the only options if the present economic boom changed dramatically.

Recreation Time

It was specified there was not much recreation time and what was available was mainly spent completing domestic tasks such as paying bills. It was commented that people with families would spend recreation time with their children, single people would spend time drinking and trying to "pick up" or find partners. The need for recreation time to socialise and unwind from work was seen as necessary to cope with the industry.

<u>Bullying</u>

Reportedly, apprentices were bullied the most, and it was considered a rite of passage – to toughen people up. However apprentices "knew it was just a joke." It was seen that when the job was perceived to have a future, the bullying was beneficial to newcomers but now the employment field was not as secure, it was no longer as useful. It was reported that bullying was also present in the form of pressure to meet schedules.

<u>Management issues</u>

There were comments that pressure from management in turn created tension between workmates. It was expressed by the participants that the men who the boss puts in positions of authority on sites "are not nice fellas". It was voiced repeatedly that the management spoke rudely to employees and that they would gain more productivity if they spoke politely to people. This was widely discussed as several people gave examples of foremen, who spoke well to their charges. The participants discussed one particular foreman who was labelled by one as "best boss he had ever had" and credited by several others. It was commented by several participants that they would like praise for their work, instead of being pressured and criticised.

<u>Finances</u>

Finances were seen as a considerable source of stress as men "lose their family lives" in to order to "make ends meet", with sacrifices of weekends required to ensure that they remain gainfully employed. Some employees regarded providing financial assistance as their only role in the family, because they could not provide other support due to their prolonged absences from the family unit. Despite some people earning good money in the industry, there were reports of financial mismanagement. When there is a pause in the constant income, issues such as mortgage payments and rent can be revealed. Consequently, financial education was regarded as an important tool, and the unions have appointed financial advisors to assist men in allocating their finances responsibly. Participants said that financial education would be beneficial, as a lot of single people spent their excessive amounts of money on alcohol. Frustration arises when employees with 10 years experience are paid the same as newcomers with no experience.

Interpersonal relationships

Extramarital affairs, by both partners, were mentioned as a consequence of longs hours spent away from home because of the demands of the construction industry. There was also extensive discussion about conflict arising from the responsibility of looking after your family, and fulfilling work commitments also. Working 5 ½ days a week leaves an "element of loneliness" as there is no time to spend with family and friends. Learning to move into and out of work life and family life was also named as a problem. The inability to separate home life and work life was seen as integral in losing hope about the future and contemplating suicide as an option.

Due to long absences, the role as a father was reportedly "lost" and industry members felt that they were perceived only as the breadwinner. Marital and de facto separation is allegedly high within the industry, and this was reportedly related to women's misunderstanding of men in the industry. The frequency of separation has also had a poor effect on workers in the industry in the form of paying large amounts of maintenance combined with a loss of emotional support. The payment of child support at a high rate without having access to their children was regarded as a significant stressor for separated construction employees. Conversely, as a result of the long working hours, fortnightly visitations with children were perceived by some as a burden as they were too tired from work, and had no time to do their regular domestic duties.

It was suggested that wives of construction workers have difficulty in understanding men in the construction industry and should be educated on how to facilitate relaxation in their partner. The change in the societal roles of women in recent years has allegedly had an adverse effect on men in the industry, as men were no longer provided with the support that there once was.

Single Fathers

Single fathers stated that they have child-minding problems, and are exhausted by their children on weekend visits, with reports of having to start the day at 4 am to take care of dependents, leaving no time for personal time beyond their children. The pressure on single fathers was reportedly greater, and there was no time in the week left for socialising, or trying to find a new partner.

Discussing personal problems with peers

It was reportedly not acceptable to discuss feelings with workmates, unless they are in the unique position of being in a one-on-one situation with a colleague that they trusted and respected. Non-disclosure became greater when stress and depression were apparent. There was apparent pressure in remaining quiet about personal problems, due to the fear of information spreading or appearing weak to workmates, with a fear of being ridiculed if disclosure was revealed to others. "We speak to each other like dogs … you not going to talk to your mates." Vague topics, such as unable to organise lives, are sometimes discussed between peers, but rarely more sensitive topics. The utility of interpersonal communication as a coping mechanism during stressful times was commented upon, but participants were dubious as to whether it would ever be practically used in this industry.

Male dominance in the Industry

Being a male-dominated industry was considered a positive in that employees have a lot of fun in the workplace, but by the same token, it was revealed that a lot of men don't know how to treat women, as they have very limited interaction with the opposite sex. In addition, being male-dominated hindered disclosure of personal matters. "When it comes to personal matters, guys clam up," stated one man.

Alcohol and drugs

Alcohol was believed to be involved in causing physical conflict between employees. Alcohol was regarded as part of the construction industry culture, and part of coping with the stress associated with work. There was further discussion on how drugs had crept into the industry, with people taking them to stay awake and to relieve work-related stress. There appeared to be a change in the choice of drug from marijuana to intravenous drugs in the past couple of decades.

Pressure

Pressure was revealed as a prominent antecedent to suicide in the industry. Pressure comes from the boss to perform beyond expectations, and pressure from management at work leads to conflict in general (at home and at work). It was nominated that work pressure, creates pressure at home, resulting in a "vicious cycle". It was specified that if an employee sought assistance in handling pressure at work, it would be perceived that they were "weak". When asked what would solve the problem of suicide in the industry, a commonly reported theme was elimination of the pressure in the industry.

Job security

A significant source of pressure was not knowing where the next job was coming from while still having to juggle financial commitments. Despite being full-time employees, workers are often only given eight hours notice of termination of employment. It was reported to be not uncommon for a boss to plead for employees to stay on a job, only to turn around and sack several people just days later. It was voiced that employment security varied from trade to trade and was a posited as a central feature in construction employees choosing to take their own lives.

Suicide prevention

As previously discussed, family issues, pressure at work from the management and. mental illness (or genetic predisposition) were all considered causative factors in suicide. Poor communication (rudeness) in the workplace was also suggested as an area that would potentially contribute to someone's decision to suicide. It was stated that workmates were responsible for suicide prevention and it was agreed that management were not approached when workers were encountering personal problems. Discussing personal problems with peers can only be done under specific circumstances, with someone they trusted, or they potentially could lose face.

Deterrents to suicide were the presence of children in people's lives, religion, and the realisation that there were people who were in less fortunate circumstances. Putting in "spotters", that is people who can recognise suicidal people in the workplace, was suggested as a possible intervention. While union representatives were seen as

approachable for various problems by some, they did not have the sufficient skills and knowledge to deal with suicidal persons, nor did they want the extra responsibility.

Other suggestions included providing professional counselling. It was suggested that management would not accept a worker attending formal counselling sessions on the job, due to the loss of productivity and the perception of the worker as weak and unable to cope with the conditions of the industry. After hours counselling at the employees home was offered as a possible solution.

Approaching suicide prevention in the manner that accident prevention had been introduced to the industry (that is, providing specific programmes) was suggested as a large-scale intervention to increase awareness. Being a valued employee in a workplace with open communication was offered as a solution to help reduce suicide numbers.

Causative factors

Family issues were described as a prominent cause in suicides in the construction industry. Other factors included: pressure at work from the management; long hours; the conflict that arises at home arising from long absences; separation and the loss of family life; and, conservative government policies. One participant stated that there was a "vicious circle" of negative thinking that preceded someone's decision to suicide. Poor communication (rudeness) in the workplace could potentially contribute to someone's decision to suicide. Mental illness, or genetic predisposition to suicide was a perceived cause of suicide by several participants, with suicidal people "born into it". It was posited that construction workers were more "black and white" in deciding on and taking a particular course of action, than white collar professionals, leading to an elevated rate of suicide in the industry.

Discussing problems with peers

It was commonly reported that personal problems were not discussed at work, for fear of it spreading to everybody on site, specifically related to the high frequency of separation in the industry. Therefore the provision of professional counselling to workers could be useful, as union delegates were facing workers coming to them with problems that they were not equipped to deal with. While unions can provide some assistance (e.g. a

worker concerned over the break-up of a relationship was aided in receiving professional counselling) it was suggested that training delegates in suicide prevention could be beneficial. A unified front of employers, workers, and unions working together to formulate a preventative strategy to suicide was suggested as a more appropriate measure.

Responsibility of Suicide Prevention

It was commonly reported that everybody was responsible for suicide prevention within the building and construction industry – bosses, workmates, master builders, unions, and government. There was a feeling that too much responsibility was currently on the unions, which was adding a large burden to their personal lives, and that professionals should be sourced. However, it was felt that counsellors should be known to the employees on-site, and not "suits" brought in for the job, as employees would be less inclined to visit someone that they did not know.

Table 7

Summary of themes and sub-themes from focus group sessions

Themes	Sub-themes	Example quotation
Work Conditions	Long work hours	"…we are working 60 hours, some blokes are working 70 hours /80 hours a week,… its just ridiculous."
	Bullying	"I reckon (apprentices)… have the worst of it mate"
	Alcohol and drugs	"People are taking drugs to keep themselves awake"
	Recreation time	"No time for a private life… work 5 and a half days a week"
	Financial management	"…not knowing or getting the education on how to look after your money…"
	Managerial issues	"… need to know how to talk to people, because you learn how to talk to someone you will get them to do a damn sight more than if you walk up (and say) 'I want you to do this s$#thead and I want it done now'…"
	Job security	"They just go there is your 8 hours (notice), see you later, and you think, 'gees, I thought I was a valued employee, but now I am not."
	Male dominance of industry	"(Construction workers) are always having fun… slagging (each other) off…"
Interpersonal relationships	Single fathers	"my day starts at 4am every day and I don't just get to go home, I have to pick my son up, bring him home, do the homework, do the washing, the cooking, keep the house clean,… and it gets you down after about 3 or 4 months"
	Alcohol and drugs	"(Alcohol is) just putting a big front up, hiding the problem that is there to start with, soon as that alcohol wears off, voom straight back again" "guys might stop off and have a beer on the way home from work, that is their de-stressing, then its… 'Where the hell have you been…'"
	Male dominance of the industry	"…not around office chicks… all day, (not) learning how to deal with them (women)"
	Discussing problems with peers	"When it comes to personal issues, guys clamp up, they don't want to talk about anything"
Suicide Prevention	Causative factors	"we work the hours that we work to get the money to pay the bills,… so you forfeit your family life… it's a no-win situation"
	Responsibility of suicide prevention	"Everyone – the government, the unions, master builders,… the boss and your workmates"
	Buffers to suicide	"Good mates,… children,… religion,…"
	Discussing problems with peers	"…Guys have more faith in their (union) delegates, because they know delegates keep quiet:
Pressure	Managerial issues	"The bosses keep putting pressure on"
	Relationships	"… everybody is under pressure then somebody says something nasty, now if you are not under pressure it is going to go over your shoulders, but the moment you are under pressure you think it is personal"
	Job security	"You don't know where your next job us going to be and if you are going to be out of work for 3 months"

SUMMARY

Suicide is a significant problem in Queensland's Commercial Building Construction Industry, with almost ten members each year taking their own life. Suicides in this occupation represented 2.4% of all suicides by working-age males (15-64 years) in Queensland from 1995 to 2001. The crude suicide mortality rate of males from within the CBCI ranged from 30.4 per 100,000 persons for the period 1995 to 1997, to 54.9 deaths per 100,000 persons in 1998. Since the peak in 1998, the rates have steadily declined each year. When compared to Australian male and Queensland male suicide rates across the same periods, the CBCI rates were 39% and 19% greater, respectively. In 1998, CBCI members were 1.82 and 1.55 times more likely to die by suicide than males from Australia and Queensland, respectively. The periods of high suicide coincided with low construction activity (i.e. value of work done), and elevated numbers of working days lost due to industrial disputes in Queensland (ABS, 2004). However, further economic modelling research is necessary to clarify the importance of these industry factors in the increase of suicide within this industry.

Younger workers (15 to 24 year olds) in the CBCI were at elevated risk of suicide, whereas older workers had very similar suicide rates to those of general Australian and Queensland males. The period of investigation was a time when rates for young Australian and Queensland males were the highest they have ever been, so the CBCI rates exceeding these highlights the extent and seriousness of this problem. In contrast, previous studies have shown that suicide rates in similar occupations increase with age (Lampert et al., 1984; Stern & Haring-Sweeney, 1997); however these studies were conducted in countries where suicide rates increases with age, a trend not seen in Australia.

Work-related factors, interpersonal/family factors, and individual factors appear to interrelate with each other to explain suicide in the CBCI. Similar multi-factorial findings have been reported in other occupations such as farmers (Malmberg et al., 1999) and doctors (Hawton et al., 2004). Further research is necessary to ascertain possible causality in this regard, for example, if the work pressure leads to alcohol abuse and marital separation, or vice versa.

CBCI workers commonly work 6 days a week, and up to 80 hours each week to meet the demands made of them by their employers. Long working hours may impact not only upon the time spent with family at home, but the quality of this time, with a reduced prospect of participating in recreational activities. Long-working hours, which was consistently reported in focus groups, may have an indirect influence on increasing suicide risk in this cohort. Long hours can impact on mental health (Spurgeon et al., 1997; Tennant, 2001), and can contribute to marital dissatisfaction and problems at home, with the spillover effect of work-related stress on mood at home having a greater effect than home-related stress on mood at work (Leiter & Durup, 1996). Similarly, work-related suicides (including construction industry) in Japan were associated with long working hours, heavy workloads, low levels of social support at work, and low levels of decision latitude (Amagasa et al., 2005).

Separation/divorce is a recognized risk factor for suicide, particularly among males (Kposowa, 2000), and has been shown to be relevant in blue-collar industries (Burnley, 1995; Stack, 1995). In line with this, standard psychological autopsy investigations revealed that young CBCI suicides were more likely to be separated/divorced and have serious relationship problems preceding their death. Focus groups revealed that the strain of long-working hours impacted on personal relationships, with a high rate of separation reported in the industry. The loss of a spouse through separation may exacerbate an already stressful work life, diminish social support networks, and intensify financial strain, through child support and maintenance payments.

Alternatively, the high rates among the younger workers in the current study could be related to the pressures associated with joining a 'masculine' industry, which (as reported from focus groups) has a bullying culture, particularly directed towards apprentices and those new to the industry. Although work-related problems were not reported in psychological autopsy interviews, this may have been due to non-disclosure of bullying, with males less likely than females to seek help for workplace bullying (Ólafsson & Jóhannsdóttir, 2004), and about one-third of people who are bullied "doing nothing" about it (Rayner, 1998). As well as verbal and physical abuse, intimidation, and isolation, workplace bullying can take the form of unrealistic deadlines, excessive work hours, and non-existent lunch breaks (Gardon, 2004). Bullying in the workplace is prevalent in blue-collar working environments (Agervold & Gemzøe Mikkelsen, 2004),

has been shown to predict depression (Kivimäki et al., 2003), and has been linked to suicide in the UK and Norway (Rayner et al., 2002).

Alcohol use, heavy drinking and past and current drug use is rife among construction industry workers (Mandell et al., 1992; Zhang & Snizek, 2003). This was characterised by low job security and poor work conditions (Zhang & Snizek, 2003). In the current study, alcohol and substance misuse was described in focus groups as a form of coping with the pressure of the industry, and is symptomatic of the industry culture. Additionally, alcohol use preceding suicide and alcohol related problems were revealed from psychological autopsies.

Limitations

Numerous factors have been suggested to complicate the investigation of suicide within specific occupations (e.g. doctors, lawyers, construction workers). First, suicide has a very low prevalence rate (between 1 and 2 for every 10,000 people), and to conduct statistically relevant analyses, large numbers of cases are required. In specific occupational groups the problem of the small sample size is clearly more challenging (Cantor et al., 1995). In addition, reliable information about occupation at the time of suicide is often lacking or generic. For instance, death reports frequently provide aggregated categories. As such, "labourers" can include landscape gardeners, builder's labourers, factory workers, and fruit pickers/handlers. Further, occupation at the time of death may not be reflective of the job that had been held by the individual for the majority of their employed life. Additionally, using inappropriate comparison groups (e.g. often the general population) when the occupation of interest has a gender-bias can provide meaningless results (Stack, 2000). Finally, information from within specific occupations and industries is generally hard to access, because of unclear borders between jobs, multiple employers within an industry, and ineffectual maintenance of personal records.

In this study, CBCI suicides were compared to the general male working-age population, not to a similarly skilled occupation. An attempt was made by the authors to compare suicide rates against a similar skill-level occupation (electrical workers) based on the Australian Standard Classification of Occupations (ABS, 1996). In this case, mortality

data was only available from the Australian Bureau of Statistics who have "strong reservations about the quality of occupation data" on death certificates (ABS, personal communication, 2003). Therefore, the results based on these comparisons (presented in Appendix A) should be viewed with caution, and future investigations should access death data directly from comparable industries in order to overcome this limitation.

In this research, it was not possible to segregate different occupations (e.g. carpenter, crane driver) and different skill levels (e.g. tradesperson, labourer). This was a consequence of the record-keeping procedures in place, which did not identify specific roles. Therefore, whether labourers have higher suicide rates than tradespersons, or vice versa remains unclear.

Psychological autopsy information is limited by the retrospective nature of its collection (De Leo & Pouliot, in press). Typically, informants are interviewed in the first few days following death, and are often in a highly distressed state, and not necessarily thinking clearly. In addition, informants may search for meaning of the suicide and provide information that they personally believe 'explains' why their loved one chose to take their own life (Cavanagh et al., 2003). Having converging evidence from multiple sources (e.g. health professionals, next-of-kin, friends) would minimise this bias. Finally, informants may be able to provide behavioural information, but it is nearly impossible to ascertain cognitive information from an independent source, regardless of how closely attached they were to the deceased.

In general, focus group research is limited by the lack of generalisability of responses that are produced, the difficulty in determining strength and consensus of issues raised, and the subjective nature of responses. Additionally, focus groups cannot be generalised to the entire population of interest due to the selectivity in gaining participation. Some participants may be hesitant to reveal personal details in focus groups as they are surrounded by peers, a problem that was revealed in the actual focus groups. Focus groups can become dominated by strong personalities, with shy or inarticulate individuals may not participate optimally. Interpreting the focus group data is also a potentially subjective process, and can be quite time consuming. The current study could have been strengthened by having additional focus groups involving other relevant persons (e.g. company directors, survivors of suicide). However, the use of

qualitative data provides additional explanatory power for the justification of elevated suicide rates, and offers a basis for which additional research can build upon.

Conclusion

Construction workers have a tendency towards elevated suicide rates, compared to the general male working age population. This is amplified in young CBCI workers, whose suicide risk is approximately twice that of age-matched cohorts. It appears that work-related factors (e.g. long working hours, pressure), interpersonal factors (e.g. relationship problems), and individual factors (e.g. alcohol and substance abuse) interact to contribute to suicide risk in this male-dominated, blue-collar industry. Strong cultural themes evolve around the industry itself, such as being 'masculine', and having a frequent association with alcohol and drug use, with more emphasis on 'toughing it out' than on communicating problems. That such themes are encountered by young males upon immediately entering the industry may contribute to perpetuating existing attitudes and behaviours, and may prove resistant to change once ingrained. Prevention programs may need to incorporate wholesale changes to the industry culture, before any specific interventions may be rendered viable. Future research should include industry-specific psychological autopsy interviews with next-of-kin, to more reliably understand the contribution of work factors in the development of fatal suicidal behaviours.

RECOMMENDATIONS

Introduction:

The aim of this section of the Final Report is to propose recommendations to the Suicide Prevention Steering Committee of the Building Construction Industry, which have been informed directly by the critical findings of Phase 1 and 2 of this project.

The recommendations are by no means exhaustive. They are inclusive of activities which are informed by the critical report findings, as well as best practice guidelines and evidence-based research where possible. Additionally, these recommendations recognise the existing Employee Support strategies implemented by the Building Construction Industry via the Union's (for example: trauma counselling, etc)

These recommendations have been aligned with the Living is for Everyone (LIFE) Framework for suicide prevention, which is a strategic framework that guides the National Action Plan for prevention of suicide and self-harm in Australia (Commonwealth of Australia, 2000; www.livingisforeveryone.com.au). This framework addresses the needs of all age groups of the life-span, with special attention to the needs of high risk and priority groups. The LIFE framework also discusses considerations for planning suicide prevention and intervention activities, and thus the recommendations in this report take into account the following considerations:

- The purpose of the intervention/prevention activity
- The target group (eg; high risk individuals, through to 'all of the population' of workers)
- The effectiveness of activities/strategies employed (eg; use of activities where the evidence for change in risk level is apparent)
- The costs and benefits of the proposed activities
- The need for collaboration and networking with key relevant stakeholders/service providers likely to provide more integrated responses for the proposed activities.

The recommendations below are reported under the categories referred to in the Spectrum of Interventions described in the LIFE Framework.

PREVENTION[2]

Universal prevention activities – these activities are directed at the entire population of construction workers (they include health promotion and protection measures)

1. Establish a coordinated working group or advisory committee for overseeing suicide prevention activities for the BCI

    a. Form a group of individuals representative of all levels of the BCI, including employees, employers, unions, Master Builders, government representatives, contractors/sub-contractors, family members, people bereaved by suicide, and representatives in the field of suicide prevention and other key stakeholders.

    b. Identify key committee objectives, including advisory roles for short, medium and long term suicide prevention strategies and evaluation frameworks.

2. Promote awareness that suicide is a preventable problem within the industry[3]

    a. Use of informative and factual flyers on the problem of suicide, as well as the associated contributing factors indicated in this report.

    b. Use of educational seminars or training incorporated into the Blue Card Training, or TAFE/Apprenticeship course modules[4]. Content should address:

        i. The prevalence of problems which are associated with suicidal behaviour (such as depression, substance use, relationship problems etc)

        ii. Knowledge of warning signs

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[2] It is advised that current employers, union representatives and employees themselves are actively involved in the consultation phase of design and delivery of all prevention program activities.

[3] Rather than "awareness messages", education materials should be supportive of protective factors, such as help-seeking, coping and problem solving abilities, and with a focus on reducing risk factors, via increasing knowledge of treatment facilities within the local areas etc.

[4] These mechanisms are suggested due to the potential to capture the widest audience, and most likely, the youngest employees (ie the high risk group of 15-24 year olds).

iii. Ways to identify and respond to these problems before they become contributing factors to suicidal behaviour.

iv. How to seek help for self and for peers who display these signs

v. Where to get support

3. <u>Reduce the stigma</u> associated with help-seeking, mental illness, and suicide

a. Instigate environmental changes across all learning environments and building sites via use of simple factual posters, flyers and course materials which dispel myths about mental illness and suicide, and which clearly convey that '*its okay to ask for help*'.

b. Use of educational seminars or training incorporated into the Blue Card Training, or TAFE/Apprenticeship course modules which directly address the issue of masculinity and the associated traditional culture of unacceptability of help-seeking (in order to positively influence attitudes towards help-seeking).

4. <u>Promote well-being, resilience and coping</u>

a. Use of educational seminars or training incorporated into the Blue Card Training, or TAFE/Apprenticeship course modules which focus on very key <u>understandings</u> and <u>skills for problem-solving</u> and coping particularly with regards to:

i. Work-related stressors

ii. Individual problems, and

iii. Work-home interface stressors (eg relationship and family problems resulting for work related stressors such as work-load etc)

5. <u>Enhancing positive environment in the workplace</u>

a. Reduce perceived stressors within the workplace, which potentially increase worker risk for suicide

i. Determine means for increasing job security by liaising with relevant stakeholders in the industry etc.

ii. Reduce unreasonable pressure on employees associated with unrealistic deadlines.

b. Reduce bullying behaviour by 'policing' employees and employers behaviour.

6. <u>Increase workplace safety</u> by reducing access to means:
   a. Implement and enforce policies for prohibiting drugs and alcohol in the workplace.[5]

Selected prevention activities – directed at those at greater risk than the general population of workers; a subgroup of workers who are already at risk of suicide due to certain risk factors, which place them at risk (these activities usually involve professional or service-based responses).

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7. <u>Provide career and financial advice</u> to young males (aged 15-24 years):
   a. Implement educational seminars or workshops tailored specifically for encouraging and motivating <u>career development pathways</u> for young males.
   b. Implement educational workshops/seminars[6] on gaining <u>financial security</u> (long term planning and investment), specifically with options for short and long term gains related to current incomes, etc.

8. <u>Improving work conditions</u> for vulnerable workers:
   a. Examine the feasibility of reducing weekly working hours for identified or 'at risk' employees (eg younger workers)

9. <u>Implement suicide prevention training programs</u> for 'identified gate-keepers' (workers in the industry):
   a. Develop and implement training for volunteer gate-keepers (workers who volunteer) with a focus on identification of warning signs for suicide, as well as appropriate referral procedures, and basic strategies for approaching a person identified as 'at risk'.

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[5] Suggestion – enforcement may take the form of anonymous peer/management surveillance, or random testing, etc.
[6] Seminar speakers should be industry employees who have experience in successful financial and career achievements

10. <u>Provide 'mentoring' services</u> for 'new employees' to the industry:

    a. Develop and offer peer mentoring systems whereby an apprentice/new employee is partnered with an experienced industry worker;

    b. Peer mentor should be trained to provide information, orientation, social support, etc in an effort to reduce bullying and increase resilience (suggestion that mentors receive a financial inducement to maintain contact and sustainability of the program)

11. <u>Provide support services for men</u> experiencing specific difficulties (for example: 1) those who are separated, 2) those who don't have custody of their children, 3) those with increased relationship conflict, and 4) drug and alcohol problems):

    a. Use of both individual and group services:

        i. Individual services - provide access to professional clinical personnel with whom workers can easily identify (i.e. personnel readily accessible on-site, not dressed in suits, as professionals etc);

        ii. Group services – provide a 'group' service, whereby men are less likely to feel stigmatised in seeking help and accepting the same.

    b. Ensure services[7] are widely acceptable and accessible with reference to localities, costs, and issues of confidentiality.

12. <u>Provide services for families and partners</u> of workers, who require support in coping with work-related stressors as well as any consequent family-related issues:

    a. Use of professional personnel who can deliver educational (plus question/answer) talks throughout the year on the issues of 'coping' and responding to the work-home interface conflicts.

    b. Initiate family and/or partner involvement in activities coordinated by the industry such as informal gatherings (monthly or bi-annually) (eg BBQ's, social group etc); in order to increase connectedness and belongingness.

    c. Disseminate Industry Newsletter/Newspaper to homes of industry members featuring (in addition to standard Industry material), articles

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[7] Services can be in partnerships with other well known and established counselling services, and/or a specific contracted service may be appointed that is contextualised to the needs of BCI workers.

pertinent to awareness of suicide warning signs, help-seeking behaviours, problem-solving strategies, how-to-cope tips, and confidential/ anonymous help-lines.

Indicated prevention activities – activities directed at the high risk individuals within the BCI, where workers currently display warning signs/vulnerabilities that indicate high risk (eg, suicidal ideation, substance abuse, depression or mental illness)

13. Provide programs for 'at risk' individuals
    a. Use of trained gatekeepers follow-up already identified 'at risk' persons, including basic 'checking' up and monitoring of i) current mental state, ii) worker's use of and access to support services, and iii) post-treatment satisfaction[8].
    b. Make available a 24 hour help-line (confidential and anonymous) for industry members in crisis. This service must be provided by well-trained clinical professionals with expertise in suicide crisis and intervention.

TREATMENT

14. Develop appropriate referral protocols and procedures for responding to workers who are identified as suicidal.
    a. Engage service providers (both immediate and long term referrals) who will respond to suicidal or 'at risk' workers; be sure to identify providers across all localities throughout Queensland.
    b. Ensure relevant Industry personnel[9] have increased awareness of referral criteria of the local treatment services.

15. Collaborate with treatment facilities/services utilised by workers who are suicidal
    a. Encourage worker to accept Industry participation in supporting his/her treatment.
    b. Maintain support and contact with the family/partner of worker, with consent of the worker.

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[8] Note that this is not a counselling role, just a monitoring role where warning signs of escalating risk are identified whilst a person is receiving help elsewhere
[9] The relevant industry personnel may be the employer, the mentor, or the counselling contractor.

c. Encourage involvement of family/partner in ongoing and shared responsibility of monitoring the worker within the home setting by maintaining contact with the workers family.

CONTINUING CARE/ POSTVENTION

16. Provide ongoing care for workers who attempt suicide
    a. Monitor workers' mental health following in-patient or out-patient treatment (ie, upon their return to work).
    b. Maintain support services in the form of available counselling and other service responses, specifically based on the individual's needs.
    c. Reduce the impact of stigmatised responses by peers in the workplace etc, by re-emphasising facts and dispelling myths about suicide as in Universal recommendations.
    d. Monitor other workers who are impacted by the suicide attempt.

17. Provide appropriate bereavement support[10] following a suicide or suicide attempt of an industry worker
    a. Provide information and education to workers and employers about grief responses to suicide.
    b. Provide information on available support services to workers, families, and staff.
    c. Establish partnerships with community organisations, police, funeral homes, hospitals, churches/clergy and specialist bereavement service providers, to improve quality support for the bereaved by suicide.
    d. Follow-up families of deceased BCI workers particularly at anniversaries of the death, for up to 5 years following the death.
    e. Monitor other workers who are impacted by the suicide.
    f. Evaluate effectiveness of postvention response, by reflecting upon outcomes and impact on workers, service coordination and response etc.

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[10] Suggestion that consultation occur with an expert in the field of suicide bereavement when selecting and developing bereavement educational materials, and plans for suicide bereavement response.

The following section provides recommendations regarding evaluation of suicide prevention programs, beginning with a brief overview of evaluation in this field.

Research & Evaluation

The implementation of any strategy should be accompanied by an evaluation component to determine the effectiveness of the given strategy. The ultimate goal of suicide prevention programmes is the prevention of suicide and suicidal behaviour. These outcomes might be difficult to evaluate for a number of reasons. Completed suicides are fairly infrequent events when considered at the occupational level (approximately 10 per year), which makes it difficult to detect changes that may be due to specific programmes, especially if multiple programmes are implemented simultaneously. It is very difficult to measure non-fatal suicidal behaviour, as most attempters do not seek medical help for their actions. The developmental pathway towards suicidal behaviour is not a continual process (which means that suicidal behaviour does not necessarily develop from suicidal ideation/thoughts, to self-harm/suicide attempts, to suicide). This makes it difficult to identify the appropriate intermediate targets for change and the corresponding outcome measures that would be most suitable for evaluation purposes. Evaluation must be realistic and cost-effective (Commonwealth Dept Health & Aged Care, 2000), with resources available to ensure the viability of the programme.

Program evaluation:

Despite these limitations, various short, medium and long-term indicators of success have been suggested to be useful for evaluation of the suicide prevention programmes. Short-term indicators are required to indicate progress towards the long-term outcomes. Short-term indicators are those changes that the strategy itself is designed to produce, for example, increased knowledge of risk factors, awareness of services available. Medium term indicators of success reveal changes that you might come to expect further down the road, for example, increased help seeking among workers or referrals of their at-risk peers. The ultimate outcome or long-term indicator of success is a reduction in suicidal behaviour and completed suicides, which may take many years to reveal if the programme does in fact have that level of impact (Ameen & Nizamie, 2004). Establishing the evaluation framework, including indicators of outcomes, prior to implementation will save time and money in the long term. When attempting to secure funds to ensure that a programme is sustainable, having the blue-print for evaluation is recommended. The

National Suicide Prevention Strategy is currently in the process of evaluating all of the programmes that they have implemented since 1999.

Internal and external evaluation:

Internal evaluation refers to implementation of an evaluation process that is implicit in the programme that one is developing. This means that from the outset (i.e. in the planning stage of the programme), a framework is developed for determining the impact of the programme (e.g. did the programme achieve what it purports to achieve? What is the difference in the outcome from pre to post programme implementation?). To maintain objectivity, the use of external evaluators is regarded as general practice. This allows independent observation of the process, strategies, and indicators. Many organisations locally and interstate specialise in performing programme evaluations.

Partnerships with external bodies: the utilisation of existing services is a cost and time-effective approach to implementing programmes. However, programmes may need to be contextualised to the peculiarities of the industry. Strategies that work in one setting may not necessarily translate to effectiveness in a different context. Therefore, a piloting phase may be necessary to determine limitations prior to full implementation.

Recommendations for Evaluation

1. Design, plan, and implement programmes that are guided by evidence provided in Phases 1 and 2 of this investigation.
2. Determine a series of short, medium and long-term performance indicators for any programme that will be used prior to implementation.
3. Keep valid and reliable records of all members, updating all possible changes in demographics (for example: marital status, place of abode, etc).
4. Develop/adapt consistent data collection tools to be utilised in pre- and post-programme implementation assessment periods. For example, prior to an awareness campaign, ascertain the current knowledge about suicide from a representative sample, and re-test the same population following the campaign.
5. Collect baseline data on indicative markers, e.g. knowledge of risk factors, current referral rates etc.
6. Engage and/or collaborate with capable external evaluators to determine the effectiveness of the suicide prevention strategies employed.

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APPENDIX A
Phase One – Final Report:

Australian Institute for Suicide Research and Prevention

Consent:

By signing below, I confirm that I have read and understood the information package and in particular that:

- I agree to participate in the project;
- I understand that my involvement in this research will include a two-hour focus group session dealing with issues relating to suicide in the Building Construction Industry;

- I have had any questions answered to my satisfaction;

- I understand the risks involved;

- I understand that there will be no direct benefit to me from my participation in this research;

- I understand that my participation in this research is voluntary;

- I understand that I will be audiotaped;

- I understand that if I have any additional questions I can contact the research team;

- I understand that I am free to withdraw at any time, without comment or penalty; and

- I understand that I can contact the Manager, Research Ethics, at Griffith University Human Research Ethics Committee on 3875 5585 (or research-ethics@griffith.edu.au) of I have any concerns about the ethical conduct of the project.

Name (print) _____

Signed _____   Date _____

Additional information:

Age _____

Occupation _____

Completed apprenticeship   Y / N

Length of time in the construction industry _____

Do you know someone who has:
                     Attempted suicide?   Y / N
                     Completed suicide?   Y / N

Australian Institute for Suicide Research and Prevention

FOCUS GROUP PROCEDURE:

1. Introductions
   a. Research team
      i. Background and qualifications
   b. Participants – name tags please
2. Background information about the project
   a. Results from Phase I
   b. Purpose of Phases II and III
3. Purpose of Focus Group discussions (informal chat)
4. Processes of Focus Group
      i. Time restrictions imply that although everyone's opinions are valid and encouraged, the most important topics will be targeted.
      ii. Ground rules of session
         - e.g. no interrupting others, feel comfortable [swearing is ok], disclosure of names outside of FG,…
      iii. Need for debriefing during or after the session
5. Questions from Participants about the *process* of the Focus Group
6. Introduction including consent
      i. Consent forms
      ii. Right withdraw at anytime
      iii. Permission for audio taping of session
      iv. Anonymity/confidentiality assurance (incl. Names will not be revealed, group data only will be reported)
7. Questions
8. Debriefing
9. Referral and contact numbers
10. Close

QUESTIONS:

1) Why would somebody working in this industry take their own life?

Responses: **Work-related** – Workload/schedule (pressure, lack of control)

- Workmate relationships

- Macho culture

- Bullying on the worksite

→ Follow-up question….

Personal/Individual – Depression

- Alcohol abuse

- Marital separation

→ Follow-up questions… (e.g. what factors could contribute to persons from this industry having a relationship breakdown?)

Home-work interface- 'Wasted Leisure Time Syndrome'

- e.g. sleep, eat, drink, fight,…

- Conflicts with family/spouse

- Childrearing issues

2) If you were thinking about taking your own-life, what would stop you from acting?

[See Reasons For Living Inventory]

Responses - Family commitment kids/partner

- Beliefs/values/religion

- Stigma/shame

3) What should be done to stop more construction industry workers taking their own lives?

Responses - …

Follow-up - Would you see an on-site counsellor if you were feeling distressed?

- What would you do if a work colleague/peer was in distress/crisis?

- Who do you think is responsible for preventing suicides in the industry?

Australian Institute for Suicide Research and Prevention