



# SUICIDE AND WORK:

THE NEED FOR IMPROVED DATA  
COLLECTION ON WORK FACTORS IN SUICIDE  
AS A CONTRIBUTION TO SUICIDE PREVENTION

**A study of cases on the Victorian Workcover Authority's compensation claims data base and the Victorian coronial data base on suicide.**

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**Creative Ministries Network  
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as a contribution to suicide prevention

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John Bottomley and Margaret Neith assert their moral right to be identified  
as the authors of this work.

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## **Dedication**

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This report is dedicated to the memory of Terry O'Brien.

Terry's compassion for families bereaved by work-related deaths was greatly valued by a number of Creative Ministries Network clients. It was his compassion and commitment to justice as a lawyer with Holding Redlich that brought Terry to our office to voice his concern about the plight of a family bereaved by a work-related suicide.

The work on this report began as a result of Terry's advocacy for his clients who suffered as victims of injustice. We offer this report in honour of Terry's passion, his commitment to justice, and his tireless advocacy.

## Acknowledgments

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The statistical analysis of the VWA data was carried out by Brian Cooper using the SPSS software. Brian expertly recoded variables and created a number of new variables that made the data easier to analyse and interpret. We are grateful for Brian's generous assistance.

Margaret Neith  
John Bottomley

## Executive summary

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This report began as a data analysis of some factors in the “suicide or attempted suicide” category of cases on the Victorian WorkCover Authority’s compensation claims data base.

Of 58 people who had a compensable claim for attempted suicide or suicide from 1985-86 to 2006-007 (21 years), 21 claims were for suicide, and of these, ten had no previous WorkCover claim, and eleven had at least one WorkCover claim prior to the death claim for workers’ compensation. This compares with research by Creative Ministries Network (previously Urban Ministry Network) that identified 34 cases in the Victorian coronial data base of suicide deaths where the coronial finding identified a work injury or work-related mental illness as a factor in the person’s suicide.<sup>1</sup> These 34 cases identified in the coronial data base occurred in an eleven year period.

Mental injury, stress or psychological injury was almost always identified as the primary cause of suicide, whether the person had one claim or more than one claim. However, most of the eleven suicides with more than one claim first came on to the workers compensation system with a physical affliction. Their later mental injury or stress affliction may have been caused by their physical injury, the subsequent loss of economic security, social connection and meaning for their life, or their experience on workers compensation, or various combinations of all of these factors.

The data identified a number of risk factors for suicide for injured workers on workers compensation. These included the length of time on compensation, the vulnerability of younger workers, the emergence of psychological symptoms of mental illness for those initially presenting with physical injury, and the possibly that workers from blue-collar occupations may be more at risk of suicide than other occupations.

The data also suggested that among those who committed suicide after a previous workers compensation claim, the length of time on compensation was positively correlated with increased probability of suicide. However, the data is not able to indicate what it is about the length of time on compensation that may be critical to whether an injured worker commits suicide. It is likely that the length of time on the system may not be as important as what happens in the person’s life history during that time.

At this point, the study decided to examine the coronial data for the 21 suicide cases to discover whether this provided further insight into the impact of work factors on these 21 cases. However, this further study highlighted the difficulty of using data from either data base for researching work factors in suicide. While this difficulty is not surprising as their data is not collected for social research purposes by either WorkCover or the Coroner, it indicates the

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<sup>1</sup> Bottomley, J., Dalziel, E., & Neith, M., (2002), *Work Factors in Suicide*, Melbourne, Urban Ministry Network.

importance for prevention of suicide that work factors are systematically documented. Because the Coroner records all suicide deaths in Victoria, it is proposed that this data collection become the foundation for meeting this need for data to inform social policy.

It is further suggested that a detailed case study be considered for the eleven cases on the WorkCover data base. This would facilitate a closer examination of the interaction of various factors through a study of these specific cases.

## Introduction

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This report begins as a data analysis of some factors in the suicide or attempted suicide of cases on the Victorian WorkCover Authority (VWA) compensation claims data base for people working in the state of Victoria.

The VWA data base contains records of 86 WorkCover claims for 58 individuals on WorkCare/WorkCover benefits who committed suicide or attempted suicide between 1985-86 and 2006-07.<sup>2</sup> Of these 58 people, four females and seventeen males committed suicide and a dependent submitted a compensation claim. The other 37 people had attempted suicide on at least one occasion.

The first part of this report is a data analysis of this sample of VWA statistical records for those 58 people who either committed or attempted suicide. It highlights the complex relationships between physical and mental injury, and other possible causal factors in these suicide deaths, such as economic and occupational factors, as well as interactions with the workers' compensation system.

The report then examines the coronial data for these 21 suicide cases to discover whether this provided further insight into the impact of work factors on their deaths. However, the comparison between the two data bases highlighted the difficulty of using data from either data base for researching work factors in suicide.

The report concludes that the prevention of suicide requires work factors to be systematically documented, and makes recommendations on how this social policy goal may be achieved through improved data collection on work factors in suicide.

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<sup>2</sup> The VWA records show suicide claims received (standardised claims only, based on mechanism code=85), as at 30 June 07.

## The VWA data

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The VWA framework for data collection may not have been designed with the type of data analysis developed in this report in mind. For example, all suicides and attempted suicides are grouped in the one category (mechanism code = 85), which meant the separation of 'suicide' from 'attempted suicide' had to be coded separately for this project using the short 'claim description' and 'accident text' included in each claim record.

It is likely this sample from the VWA data base is a significant under-representation of those who commit suicide from work-related causes. Of the 21 suicides reported for the 21 years period under review, ten claims (2 females, 8 males) were first claims by dependents for workers' compensation. That is, a claimant submitted that work was a causal factor in each of these ten suicides. This compares with 109 cases in the eleven years period 1989-2000 where work factors were identified in the Victorian coronial data base as contributing factors to suicide (Bottomley, Dalziel, Neith, p.4). Of the eleven people who committed suicide after making more than one claim, two were females and nine were males.

There are limitations in the claims data that are outside the power of VWA to control. The data is limited by what information is provided by the claimant, or the dependents. A claim for workers' compensation as a result of suicide may not be made because the worker had no dependents to make a claim, or the dependent may not be aware of the work-related causes of the person's suicide, or may not have known that they could make a claim.

It is likely this sample from the VWA data base also under-represents those who commit suicide after having been on workers' compensation or who still were on workers' compensation. Of the 21 suicides reported for the 21 years period under review, eleven claims were for people who had two claims or more. That is, eleven workers had either been on, or were still on the compensation system at the time of their suicide. This compares with research by Creative Ministries Network (previously Urban Ministry Network) that identified 34 cases in the Victorian coronial data base of suicide deaths where the coronial finding identified a work injury or work-related mental illness as a factor in the person's suicide. (Bottomley, Dalziel, Neith, p.17) These 34 cases identified in the coronial data base occurred in an eleven year period.

The 36 claims for attempted suicide may also underreport this behaviour because of the likely stigma associated with such claims in the workplace, the community and possibly the family.

One other concern with the data, as table one shows, is how the number of reported claims in this category jumps sharply from 1999-2000. Until then, there were no more than three claims per year, but from 2001 most years recorded more than ten claims.

Table one: year of suicide/attempted suicide claim

<b>Year of claim</b>	<b>Suicide or attempted suicide claims</b>
<b>1985/1986</b>	3
<b>1987/1988</b>	2
<b>1988/1989</b>	2
<b>1990/1991</b>	1
<b>1991/1992</b>	2
<b>1993/1994</b>	2
<b>1994/1995</b>	2
<b>1996/1997</b>	3
<b>1999/2000</b>	2
<b>2000/2001</b>	10
<b>2001/2002</b>	11
<b>2002/2003</b>	12
<b>2003/2004</b>	11
<b>2004/2005</b>	7
<b>2005/2006</b>	13
<b>2006/2007</b>	3
<b>TOTAL</b>	<b>86</b>

The reported increase may be the result of improved data entry procedures instituted in 2000 and after, or it may reflect changes in community attitudes towards discussing and reporting suicide. It may be due to a flow-through effect if governmental changes to the workers' compensation system in 1993 made being on workers' compensation more stressful to some injured workers.

Of the ten suicides where there was the one compensation claim, nine of these occurred after 1993, and only one suicide death was recorded from 1986-1992 where this was the only compensation claim for that person.

Of the eleven suicides where the deceased person had a previous claim for work injury, seven had a previous claim in the period 1986-1992, but all eleven suicides occurred after the government changed the compensation system in 1993. It may be that for some injured workers, the bureaucratic nature of the compensation system is a final stressor that they are unable to bear. The data analysis that follows the next section explores further how mental injuries appear to develop over time for some physically injured workers.

#### First and last claims

Although all the people reported on for this data report had committed suicide or attempted suicide, not all their claims history was related to suicide or attempted suicide. These VWA records contain the history of all the claims for a work injury made by these individuals.

Of the total, 19 people (one-third) registered one claim, almost one-third (17 people) had two claims, and the remaining 38 per cent (22 people) had made three or more claims. The highest number of claims by a single individual was eleven separate claims over the period he was working in Victoria.

To examine the changes that occur for people over time from their first workers' compensation claim, a number of new variables were created from existing variables to distinguish between the first and last case for each variable. First and last variables were created for the following:

- Mechanism – is the action, exposure or event which most directly caused the most serious injury or disease (or death).<sup>3</sup>
- Affliction – is the nature of the injury or disease.
- Body – is the bodily location of the injury or disease.
- Claim – is a description of the claim.
- Occupation – is a classification of a person's occupation at the time of the claim.
- Industry – is a classification of the industry the person was working in at the time of the claim

Creating a first and last case for each of these variables enabled the study to examine any change that may have occurred between these two cases for each individual.

For the 19 people with only one claim, the first case for each variable is also the last case. For the remaining two-thirds of claimants with more than one claim, the study examines any reported changes between their first and last claim.

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<sup>3</sup> VWA, VCODE: the nature of injury/disease classification for Victoria, version 1.1, Nov. 2003, p.47

## Analysis of the VWA data

### The 'mechanism' for a claim

Ten people (17%) who committed suicide had only one workers' compensation claim, which was for their death.

Another 11 people (19%) who committed suicide had at least one previous workers' compensation claim encompassing a range of physical or mental/psychological conditions. Of these eleven people, another injury was the mechanism of the first claim for five of them. This means the first claim for the remaining six in this category was attempted suicide. (see Table 2)

Eleven people whose first claim was attempted suicide (6) or another injury (5) had a last claim that was a death claim. (see table 3) That is, 11 people committed suicide after being on workers' compensation with at least one claim for a previous injury or attempted suicide.

A further 37 people (64%) had attempted suicide (see table 2). Of these 37 people, attempted suicide was the first claim for 25 of them, and 12 had had a different type of injury for their first claim. This group of 12 then had a subsequent claim for attempted suicide.

Table two: Death status of claimant x mechanism for their first claim

Death status	Mechanism for the first claim					
	Suicide/attempted		Other injury		Total	
	No.	%	No.	%	No.	%
Died, one claim	10	24	-	-	10	17
Died, more than one claim	6	15	5	29	11	19
Injury, not death	25	61	12	71	37	64
<b>Total</b>	<b>41</b>	<b>100</b>	<b>17</b>	<b>100</b>	<b>58</b>	<b>100</b>

Table three: Death status of claimant x mechanism for their last claim

Death status	Mechanism for the last claim					
	Suicide/attempted		Other injury		Total	
	No.	%	No.	%	No.	%
Died, one claim	10	20	-	-	10	17
Died, more than one claim	11	22	-	-	11	19
Injury, not death	29	58	8	100	37	64
<b>Total</b>	<b>50</b>	<b>100</b>	<b>8</b>	<b>100</b>	<b>58</b>	<b>100</b>

Of the 25 people whose first claim was for attempted suicide, eight had subsequent claims for other injuries (see table 3). For example, “Alan”<sup>4</sup> attempted to take his own life by swallowing poison while working on trains. He witnessed the deaths of three people who committed suicide, leading to his own depression and anxiety. Later, Alan experienced hearing loss and soft-tissue injuries to his elbow, neck, shoulders and back from repetitive movement injuries caused by constant use of the brake and the controller handler. He continued to suffer from post-traumatic stress disorder and made another attempt on his life. Alan’s most recent WorkCover claim was for muscular stress to his lower back due to poor seating and trying to move a wheelchair ramp.

### Affliction

Four categories were created from descriptions in the data base of claimant’s afflictions. These were physical injury, mental disorder, post trauma stress, and stress/reaction to a stressor. These afflictions were then grouped into two categories of physical injury and mental/stress affliction.

Table four: Type of Affliction by First and Last Claim

Type of affliction	Frequency		Percent	
	First Claim	Last Claim	First Claim	Last Claim
Physical	30	10	52	17
Mental/Stress	26	46	45	79
Missing	2	2	3	3
<b>Total</b>	<b>28</b>	<b>58</b>	<b>100</b>	<b>100</b>

Of the 58 individuals in this sample, 52 per cent had a first claim for a physical affliction compared with only 17 per cent having a last claim for a physical condition. That is, over three-quarters (79%) of those who had more than one claim made their last claim for a mental injury or stress affliction.

In seven out of eight cases where the first claim was for suicide, the primary affliction was mental injury or stress<sup>5</sup> (see table 5). For example, “Jean” worked in administration as a secretary. At the time of her death, Jean was suffering severe stress and depression caused by workplace bullying. She took her own life at home by taking a drug overdose.

Those who committed suicide after more than one workers’ compensation claim were significantly more likely to come on to the system with a physical (8 people) rather than a mental injury or stress (3 people) affliction (see table 5). However, the last claim made for their suicide is virtually the mirror opposite, with almost all claims being for mental injury or stress (9 people) rather than a physical affliction (2) (see table 6).

<sup>4</sup> All the names of VWA clients are pseudonyms.

<sup>5</sup> The categories ‘mental injury’ and ‘stress’ are derived from the VWA data base and were then grouped into one category.

A case study shows how a physical work injury claim may culminate in a death claim for suicide. “Gavin” lodged his first WorkCover claim when he was aged 26 and working as a bricklayer. While bending over at work, he experienced severe pain and injured his back. The next few years were spent off work on worker’s compensation. During this time, Gavin developed severe depression and attempted suicide twice. He eventually returned to work, but committed suicide aged 32 years old.

Mental injury or stress is almost always the primary cause of suicide, whether the person had one claim or more than one claim. However, most of the eleven suicides with more than one claim first came on to the workers compensation system with a physical affliction. Their later mental injury or stress affliction may have been caused by their physical injury, the subsequent loss of economic security, social connection and meaning for their life, or their experience on workers compensation, or various combinations of all of these factors.

The eleven people with more than one claim who committed suicide were on workers compensation for almost three times as long as those who attempted suicide - an average 623 days compared with 236 days average for the 37 people who attempted suicide. It appears that the length of time on workers compensation may contribute to a person’s decision to commit suicide.

A similar pattern of increased mental illness exists for those who had more than one claim and had attempted suicide. More of them had a physical (21 people) rather than mental injury or stress (16 people) cause for their first claim, but this is reversed by their last claim, with most then having a mental injury or stress affliction (30 people) rather than a physical (7 people) cause. Again, this suggests their later mental injury or stress affliction may have been caused by their physical injury, the subsequent losses associated with their injury, or their experience on workers compensation, or a combination of all these factors.

Table five: Death status of claimant x affliction with first claim

Death status	Affliction with first claim					
	Physical		Mental/stress		Total	
	No.	%	No.	%	No.	%
Died, one claim	1	3	7	27	8	14
Died, more than one claim	8	27	3	12	11	20
Injury, not death	21	70	16	61	37	66
<b>Total</b>	<b>36</b>	<b>100</b>	<b>20</b>	<b>100</b>	<b>56</b>	<b>100</b>

Table six: Death status of claimant x affliction with last claim

Death status	Affliction with last claim					
	Physical		Mental/stress		Total	
	No.	%	No.	%	No.	%
Died, one claim	1	10	7	15	8	14
Died, more than one claim	2	20	9	20	11	20
Injury, not death	7	70	30	65	37	66
<b>Total</b>	<b>10</b>	<b>100</b>	<b>46</b>	<b>100</b>	<b>56</b>	<b>100</b>

Part of the body

The pattern of responses for the part of the body injured by work is almost identical to the pattern of responses seen above for the nature of the affliction causing a workers compensation claim.

Almost two-thirds (62%) of first claims for people who committed suicide/attempted suicide were for back or other injuries to the body, and 35 per cent were related to the psychological system (see table 7).

For those with more than one claim, only 17 per cent of last claims were related to the back or other physical aspects of the body compared with 79 per cent of last claims that were related to the psychological system. That is, the first contact with the compensation system for those who committed suicide/attempted suicide was more likely due to a physical injury, while those who had subsequent periods of workers' compensation due to more than one claim were more likely to end up with an injury to their psychological system.

Table seven: First and Last Claims for Part of the Body Affected

Affected part of the body	Frequency		Percent	
	First Claim	Last Claim	First Claim	Last Claim
Physical	36	10	62	17
Psychological	20	46	35	79
Missing	2	2	3	3
<b>Total</b>	<b>58</b>	<b>58</b>	<b>100</b>	<b>100</b>

In seven out of eight cases where the first claim was for suicide, the primary cause of their suicide was a psychological injury. (see table 8).

Those who committed suicide after more than one workers compensation claim were significantly more likely to come on to the system with a physical (9 people) rather than a psychological (3 people) claim for compensation (see table 8). However, the last claim made for their suicide is virtually the mirror opposite, with almost all claims being for psychological injury (10 people) rather than a physical injury (1) (see table 9).

Psychological injury is almost always the primary cause of suicide, whether the person had one claim or more than one claim. However, most of those who had more than one claim first came on to the workers compensation system with a physical injury. Their later psychological injury may have been caused by their physical injury, or their experience on workers compensation, or a combination of both.

Table eight: Death status of claimant x part of body for first claim

Death status	Part of body for first claim					
	Physical		Psychological		Total	
	No.	%	No.	%	No.	%
Died, one claim	1	3	7	35	8	14
Died, more than one claim	9	25	2	10	11	20
Injury, not death	26	72	11	55	37	66
<b>Total</b>	<b>36</b>	<b>100</b>	<b>20</b>	<b>100</b>	<b>56</b>	<b>100</b>

Table nine: Death status of claimant x part of body for last claim

Death status	Part of body for last claim					
	Physical		Psychological		Total	
	No.	%	No.	%	No.	%
Died, one claim	1	10	7	15	8	14
Died, more than one claim	1	10	10	22	11	20
Injury, not death	8	80	29	63	37	66
<b>Total</b>	<b>10</b>	<b>100</b>	<b>46</b>	<b>100</b>	<b>56</b>	<b>100</b>

The likely interrelated nature of the physical and psychological factors is illustrated by the following two cases. It is important to note in these cases that physical and psychological factors may not be the only factors involved. Other factors that may be involved are not always captured by the claims data, which is completed to enable a worker or dependent submit a claim. The data being analysed has not been designed to facilitate an examination of causal relationships between factors. The case studies are therefore at best illustrative of the interrelated nature of the factors identified in the claim being made for compensation.

“Marie” had three WorkCover claims during her working life. While in her early thirties and doing personal care work, Marie lifted a client out bed to give her a shower. Marie injured her right shoulder and neck, resulting in back pain. Seven years later, while working in a nursing home, Marie again suffered a strain injury to her shoulder while lifting a hot box out of her car to shift to the main kitchen. Marie’s third and final WorkCover claim was after she returned to work as a primary teacher. She suffered from severe stress and anxiety from dealing with a difficult parent at her school, and had over seven months off work on compensation. But when she was 50 years old, Marie committed suicide.

“Laurie” was 34 and working as a storeman when he lodged his first compensation claim for muscular stress and lacerated fingers incurred after attempting to move a heavy oil drum. Almost ten years later, when working as a delivery driver, Laurie witnessed a traumatic event that caused a mental disorder. His mental illness was exacerbated by pressure from his management, and he was off work for over a year, returning as a gardener. Laurie’s attempted suicide followed an injury to his back from being trapped between a stationary and a moving object at work, leading to pain in his back, neck and legs. These injuries resulted in another long period off work, but a year later Laurie went back to work as a white goods storeman. He tried forklift driving, but suffered severe recurring pain in his back from pushing and pulling washing-machines. Laurie committed suicide aged forty-eight years old.

In both these cases, the person’s first injury was of a physical nature, causing periods of pain. Both also had subsequent physical, painful injuries. Their physical injuries made them eligible for workers compensation, and both had experience of being on workers compensation. Both were then also exposed to incidents that caused both of them psychological harm, and finally both Marie and Laurie committed suicide. This data analysis draws attention to a number of possible factors in their deaths, including their personal history of physical injury and pain, changing economic status and occupational circumstance, their exposure to work-related stress, their experience of the workers compensation system, and the onset of symptoms of mental illness.

The ten people whose suicide was their only compensation claim were on average ten years older than the eleven people who committed suicide after more than one claim – 45.8 years compared with 36 years. While the older workers more often had claims for work-related psychological injury, the younger workers first had a claim for a physical injury before their psychological injury developed.

A similar pattern exists for those who had more than one claim and had attempted suicide. Most of them had physical (26 people) rather than psychological (11 people) grounds for their first claim, but this is reversed by their last claim, with most then having a psychological (29 people) rather than a physical (8 people) cause. Again, this suggests their later psychological injury may have been caused by their physical injury, or their experience on workers compensation, or a combination of both.

### Occupation

More people with manager/professional occupations had a single claim for suicide (27%) compared with intermediate/white collar workers (17%) or blue collar workers (10%) (see table 10).

Table ten: Death status of claimant x occupation for first claim

Death Status	Occupation for first claim							
	Manager/ Professional		Intermediate/ White Collar		Blue Collar		Total	
	No	%	No	%	No	%	No	%
Died, one claim	6	27	1	17	3	10	10	17
Died, more than one claim	2	9	1	17	8	27	11	19
Injury, not death	14	64	4	66	19	63	37	64
<b>Total</b>	<b>22</b>	<b>100</b>	<b>6</b>	<b>100</b>	<b>30</b>	<b>100</b>	<b>58</b>	<b>100</b>

There were more blue collar workers who committed suicide after at least one previous compensation claim (25%) compared with manager/professionals (17%) or intermediate/white collar workers (nil) (see table 11). While these differences are small, they suggest that social class may be a contributing factor to the suicide of people who have been on workers compensation.

About two-thirds of each occupational group made up first claims for attempted suicide or injury (see table 10), with the proportion for last claims for attempted suicide or injury increasing most from 66 per cent to 86 per cent for those with intermediate/white collar occupations (see table 11). The differences are too small to be significant.

Table eleven: Death status of claimant x occupation for last claim

Death Status	Occupation for last claim							
	Manager		Intermediate/ White Collar		Blue Collar		Total	
	No	%	No	%	No	%	No	%
Died, one claim	6	26	1	14	3	11	10	17
Died, more than one claim	4	17	-	0	7	25	11	19
Injury, not death	13	57	6	86	18	64	37	64
<b>Total</b>	<b>23</b>	<b>100</b>	<b>7</b>	<b>100</b>	<b>28</b>	<b>100</b>	<b>58</b>	<b>100</b>

### Industry

The small number of cases in the data base means any differences between industry sectors are not significant.

It may be worth noting however that the only sector where there are more suicides for last claims (6) than first claims (3) is in the manufacturing, construction and transport sector. For the public service and other industry sectors, there are slightly more suicides resulting in first claims (3 & 4 claims respectively), not last claims (2 & 3 claims respectively) (see tables 12 & 13).

Table twelve: Death status of claimant x industry for first claim

Death Status	Industry for first claim							
	Other		Manufacturing Constn, transpt		Public sector		Total	
	No	%	No	%	No	%	No	%
Died, one claim	4	25	3	13	3	16	10	17
Died, more than one claim	3	19	6	26	2	10	11	19
Injury, not death	9	56	14	61	14	74	37	64
<b>Total</b>	<b>16</b>	<b>100</b>	<b>23</b>	<b>100</b>	<b>19</b>	<b>100</b>	<b>58</b>	<b>100</b>

Table thirteen: Death status of claimant x industry for last claim

Death Status	Industry for last claim							
	Other		Manufacturing Constn, transpt		Public sector		Total	
	No	%	No	%	No	%	No	%
Died, one claim	4	27	3	13	3	15	10	17
Died, more than one claim	3	20	6	26	2	10	11	19
Injury, not death	8	53	14	61	15	75	37	64
<b>Total</b>	<b>15</b>	<b>100</b>	<b>23</b>	<b>100</b>	<b>20</b>	<b>100</b>	<b>58</b>	<b>100</b>

## Discussion of the VWA data

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The data reveals a tendency for some people who come on to workers compensation with a physical injury to later develop a mental illness. Of eleven workers who committed suicide, eight first came onto the system with a compensation claim for a physical injury.

We propose the reasons for their deterioration in psychological well-being needs to be further investigated, because various types of mental illness are reported as the main type of affliction in seven out of eight first claims for suicide, and in nine out of eleven final claims for suicide.

The data for attempted suicide shows a similar deterioration in psychological well-being. Twenty-six of 37 who attempted suicide had a first compensation claim for a physical injury, while 29 out of their 37 last claims reported a psychological cause.

The data suggests that among those who committed suicide after a previous workers compensation claim, the length of time on compensation was positively correlated with increased probability of suicide. However, the data is not able to indicate what it is about the length of time on compensation that may be critical to whether an injured worker commits suicide. It is likely that the length of time on the system may not be as important as what happens in the person's life history during that time.

A detailed analysis of the eleven cases who committed suicide after an earlier compensation claim is needed to examine a range of factors not identified in the data. These may include changes to income from being on compensation, rehabilitation trajectory and changes in occupational status, changes in illness and treatment, the number and outcomes from medical reviews, and changes in family situation. The fact that each of these eleven suicide deaths occurred after changes to the compensation system in 1992 also suggests that system factors should not be ignored in examining the causes of suicide amongst workers who have previously experienced a work injury.

The data identifies a number of risk factors for suicide for injured workers on workers compensation. These include the length of time on compensation, the vulnerability of younger workers, the emergence of psychological symptoms of mental illness for those initially presenting with physical injury, and the possibly that workers from blue-collar occupations may be more at risk of suicide than other occupations.

With almost one-quarter (24.4%) of those in the classification 'suicide/attempted suicide' confirmed as suicide, it is further proposed that Victorian WorkCover Authority's VCODE for injury/disease classification in Victoria be modified to code suicide deaths as separate outcomes from the attempted suicide claims. This will strengthen the capacity of the Authority and researchers to study the causes of suicide and attempted suicide, and

enhance the likelihood of more effective measures for prevention of both death and injury.

In conclusion, the data analysis in this report has demonstrated the interrelationship of physical and psychological factors in the suicide of workers whose first experience of compensation is due to a physical injury, with other possible factors including occupation, industry sector and the worker's interaction with the compensation system. Due to the limitations of the claims data, it is not possible to explore the causal relations amongst these factors.

There is a need to further investigate the nature of the causal relations among the factors identified in this study for these suicides. Also, there may be other factors to be considered that are not included in the claims forms. A more detailed examination of case files associated with these cases may be a fruitful line of investigation of this complex and tragic issue.

## Report on Coroner's Findings for those in the VWA data base of work-related suicide

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In the data provided by WorkCover there was no record of prior WorkCover claims in relation to ten compensable suicides where work factors were relevant to the person's death. The only compensation claim that existed on the WorkCover data base for each of these ten persons was for their death by suicide.

It was decided to follow up these ten cases with the Victorian State Coroner's office to find out whether the coronial investigation or inquest could shed more light on work factors involved, and the person's work history.

The surprise was to find significant discrepancies between the WorkCover data on compensable suicides, and the Coronial data reporting findings for the same ten cases of suicide. It was decided to explore whether there were also discrepancies in the data collected for the eleven cases on the WorkCover data base where the deceased person had a previously accepted claim for work injury. The Coroner provided data on these eleven suicide cases, and the pattern of discrepancy was similar in the second group of cases as was observed in the first group of cases.

This section presents a case-by-case comparison of the coronial findings for the two categories of suicide discussed in the analysis of the VWA data.

### Summary of findings

Of the ten cases where the suicide was the only claim in the WorkCover data, one of the ten was not found in the coronial records. The Coronial data base record of findings for the nine suicide WorkCover case claims revealed:

- In four cases, work factors were not mentioned at all as contributing factors to suicide.
- In four cases work factors were mentioned as contributing factors to suicide.
- In one case, it was ambiguous as to whether factors at the person's place of employment contributed to his suicide.

Of the eleven cases on the WorkCover data base where the person's suicide was preceded by an earlier WorkCover claim, three cases were not able to be identified in the coronial findings. The Coronial data base record of findings for the eight suicide WorkCover case claims revealed:

- In three cases, the coronial findings did not identify an earlier work injury, although one of these cases mentioned an injury without reference to its cause.
- In five cases, work injury was mentioned in the coronial findings as a possible contributing factor to the person's suicide. Of these, three had previously attempted suicide on at least one occasion.

Summary from Coronial findings: compensated suicide cases no previous WorkCover claim

Male, Death from burns, 7 February 1989

- no inquest was held
- no mention of work factors in Record of Investigation report
- death occurred after a domestic argument

Male, Death by drowning, between 7<sup>th</sup>. and 10<sup>th</sup> September 2001

- no inquest was held
- had a rapid and progressive mental illness and psychotic episodes
- was on medication
- no mention of work factors in Record of Investigation report

Male, Death by hanging, 30<sup>th</sup> September 2001

- no inquest was held
- deceased had "work problems" (not specified)
- had sought medical advice to help him sleep

Male, Death by cranial and brain injury due to gunshot, 13th August 2002

- no inquest was held
- no mention of work factors in Record of Investigation report
- police found no suspicious circumstances

Male, Death consistent with asphyxia due to hanging, 25 March 2003

- no inquest was held
- deceased had lost his job as a maintenance worker two weeks prior and according to wife had been subdued and quiet for the previous few days
- no sign of intervention by any other persons in his death

Male, Death by hanging – intentional, 17 December 2003

- no inquest was held
- was employed as an administrator at his children's crèche
- had admitted taking a large sum of money from another company for personal use and had agreed to repay the money (not clear whether he was also employed by this company)
- indicated he needed psychiatric help
- disappeared and was reported missing
- was found hanged in his truck

Male, Death by hanging – intentional, 5 August 2005

- no inquest
- deceased was employed by Salvation Army employment service
- no mention of work factors
- diagnosed with major depressive disorder and had prescribed medication

Female, Suicide by hanging, 18 August 2005

- no inquest
- deceased's employment had been terminated following an investigation into irregularities in staff accounts
- wrote a suicide note to her partner

Male, Death by gunshot injury to the forehead, 20<sup>th</sup> February 2006

- no inquest
- worked as a general practitioner
- was being reviewed by Medical Board into his treatment of a patient
- was suffering from stress and depression and concerned his treatment of other patients was suffering as well
- on the day he died one of his patients told him of her concerns about his treatment of her as a patient
- he was found dead in his utility
- finding was "(he) intentionally took his own life while depressed over work issues"

Note that one of the cases in the WorkCover suicide data was not able to be located in the Coroner's records.

Summary from Coronial findings: compensated suicide cases with at least one previous WorkCover claim

Male, Death by hanging, 29th January 1997

- no inquest
- had become depressed in relation to his new business
- domestic issues
- had attempted suicide in the past
- wrote a suicide note

Male, Death by gunshot injury to the head, 11 November 2003

- no inquest
- a business partner in a recycler's business
- suffered from depression
- wrote suicide note
- shot himself after putting his affairs in order, leaving work at the end of the day, and crossing to the other side of the road from his work premises

Male, Death by hanging, 15th August 2005

- no inquest
- had male to female gender reassignment
- life was in "turmoil"
- left a suicide note indicating he proposed to take his own life due to stresses with work-related legal proceedings

Female, Death by severe hypoxic brain damage, multiple drug overdoses (on historical grounds), 14th October 2001

- inquest was held

- damaged her knee in a work injury in 1994 and underwent surgery
- experienced continuing high levels of pain for which she was prescribed drugs which caused sedation
- expressed suicidal tendencies and attempted suicide on 3 occasions (1998, 1999, 2001)
- her husband reported she was extremely frustrated at the slow progress of her WorkCover claim in relation to her knee and the initial compensation amount (\$6,000) which did not cover her high annual medical expenses (\$30,000). She was also in intense pain.
- left a suicide note.

Female, Death consistent with drowning, 8th December 2002.

- no inquest
- no suicide note
- had attempted suicide on 8 previous occasions
- had suffered from severe depression for previous two years
- her treating practitioners believed this was linked to or triggered by an incident involving her workplace
- also had features of borderline personality disorder and major depressive disorder

Male, Death by hanging, 27th October 2003

- no inquest
- no note mentioned
- alcohol problems
- was under psychiatric treatment for issues of anxiety, pain and depressive symptoms as a result of work-related injuries and marital issues.

Male, Death by strangulation by hanging, 21st May 2003

- no inquest
- occupation contract welder
- 2002 had a major motor cycle accident suffering a broken vertebrae in his lower back and was in continual pain from that time, returned to work in 2003
- had attended grandmother's funeral the previous day
- a discussion with his fiancé resulted in the break-up of his engagement
- no work issues mentioned

Male, Death by hanging, 12th March 2005

- no inquest
- had told others on many occasions of suicidal intentions
- no work factors mentioned
- left several suicide notes

Note that three of the cases in the WorkCover suicide data were not able to be located in the Coroner's records.

## **Discussion of the VWA and coronial data on work factors in suicide**

Of the twenty-one WorkCover claims for work-related suicide, four could not be identified on the Coronial data base for suicide. The Coronial data base record of findings for the remaining seventeen suicide WorkCover claims revealed:

- In seven cases, neither work factors in general nor were work injuries in particular mentioned as contributing factors to the person's suicide.
- In nine cases work factors in general or work injuries in particular were mentioned as contributing factors to the person's suicide.
- In one case, it was ambiguous as to whether factors at the person's place of employment contributed to his suicide.

The coronial data source was in agreement in less than half the WorkCover cases (that is, nine out of 21 cases) that work factors contributed to the person's suicide.

Conversely, the 21 work-related suicides reported for the 21 years period covered by the WorkCover data is less than one-fifth of the 109 cases in the eleven years period 1989-2000 where work factors were identified in the Victorian coronial data base as contributing factors to suicide (Bottomley, Dalziel, Neith, 2002, p. 4).

Each data source has a primary purpose that is not related to research purposes, so there is no implied criticism of either data source. This small study does highlight the fact that there appears to be a need to address how to collect data on work factors in suicide that would better serve social research as a means for improving social policy for prevention of work-related suicide.

The coronial data base is more comprehensive than the WorkCover data base because it collects data on all suicides in Victoria, whereas the WorkCover data is for compensable injury and deaths only. This suggests that improvements to the coronial data collection will provide greater social research and social policy benefits for the prevention of work-related suicide.

## Recommendations

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At least two areas of investigation are proposed to improve the coronial data to assist with the collection of information for the development of policies aimed at the prevention of work-related suicide.

1. Information on work factors need to be investigated for those who are of employable age at the time of their suicide. This information may be collected from family members, but must be obtained from a work colleague or occupational health and safety representative, and a senior manager or employer.
2. The information on when work factors have been judged by witnesses to have affected the person needs to be identified on a time-line of events. This may help trace the interaction of work factors with various other factors, such as mental health and family breakdown.

It is further suggested that a detailed case study be considered for the eleven cases on the WorkCover data base. This would facilitate a closer examination of the interaction of various factors through a study of these specific cases.