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Creating a mentally healthy workplace

Return on investment analysis

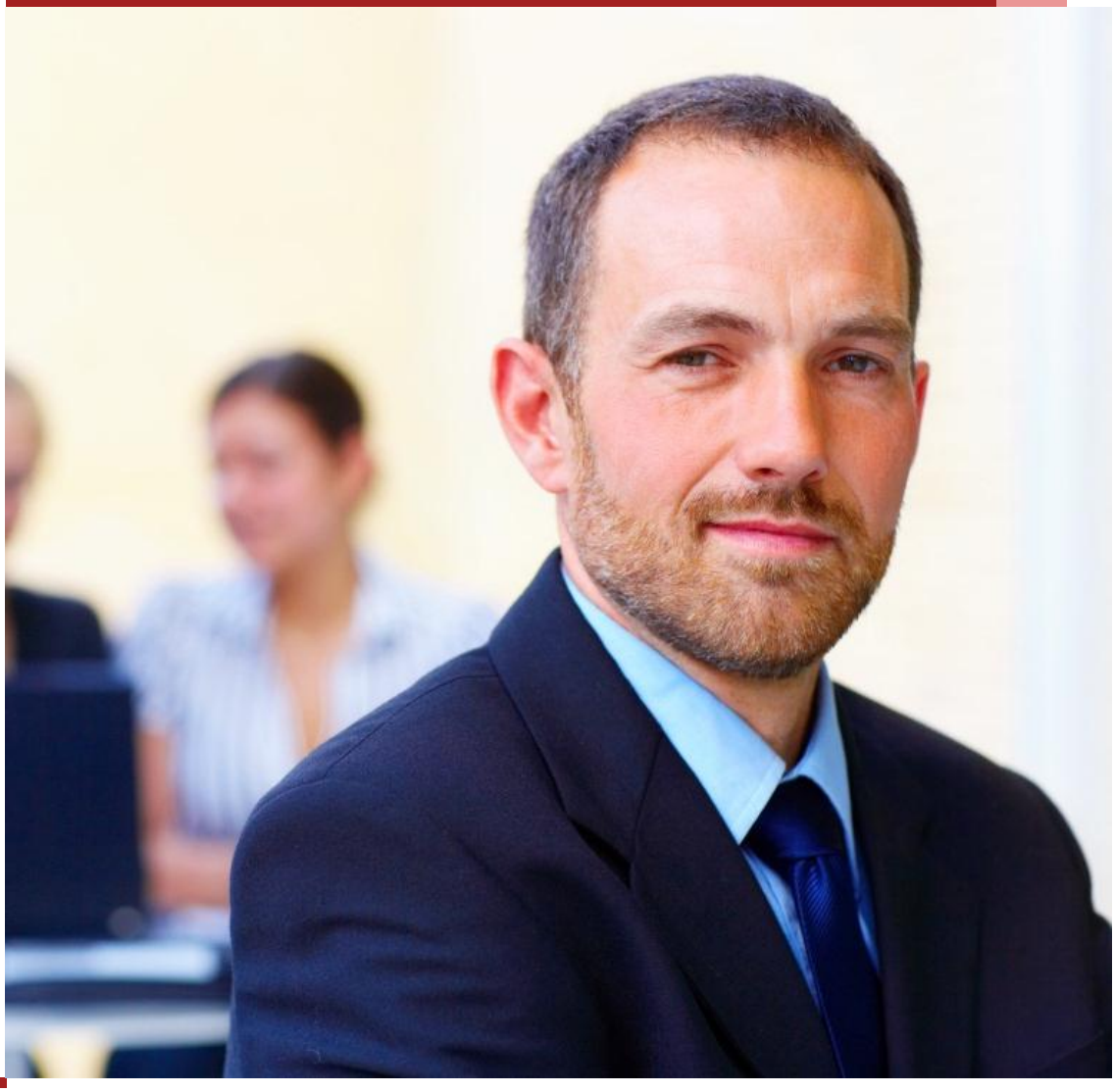
beyondblue

Australian Government
National Mental Health Commission

THE MENTALLY HEALTHY WORK PLACE ALLIANCE

Final Report

March 20 14



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Acronyms and abbreviations

Acronym/abbreviation	Description
ABS	Australian Bureau of Statistics
ANZSIC	Australian and New Zealand Standard Industrial Classification
CBT	cognitive behaviour therapy
EAP	Employee Assistance Program
FTE	full-time equivalent
GHQ	General Health Questionnaire
ICD-10	International Classification of Diseases 10th Revision
IPS	individual placement support
IT	information technology
NCETA	National Centre for Education and Training of Addiction
NMHWS	2007 National Mental Health and Wellbeing Survey
PESTLE	political, economic, social, technological, legal and environmental
ROI	return on investment
UNSW	University of New South Wales

Executive summary

Key findings

- Mental health conditions present substantial costs to organisations. However, through the successful implementation of an effective action to create a mentally healthy workplace, organisations, on average, can expect a positive return on investment (ROI) of 2.3. That is, for every dollar spent on successfully implementing an appropriate action, there is on average $2.30 in benefits to be gained by the organisation.
- These benefits typically take the form of improved productivity, via reduced absenteeism and presenteeism (reduced productivity at work), and lower numbers of compensation claims.
- Implementing multiple targeted actions is likely to lead to further increases in ROI, noting that the cumulative benefits of multiple actions will be less than their sum as actions may apply to the same group of employees.
- The productivity gains generated from different actions may vary depending on the industry and size of an organisation.
- Actions tend to be more effective when implemented in smaller sized organisations because the single most critical success factor is employee participation. This may mean that actions are best implemented on a team or group basis in larger organisations.
- In order to achieve a positive ROI, organisations will need to have addressed the critical success factors for change. In particular, implementing one or several actions is unlikely to be effective unless there is leadership and management support for improving the culture and mental health of the workplace.

This report outlines the technical background to the return on investment (ROI) analysis for creating a mentally healthy workplace. The aim of this analysis is to estimate the ROI for employers investing in a mentally healthy workplace. Accordingly, the analysis:

- estimates the cost to employers of mental health conditions
- estimates the costs and the ROI for implementing workplace mental health actions using an economic model and simulating different scenarios based on the workplace environment (scenarios for actions are detailed in Appendix F)

Mental health conditions are a real and significant issue that impact individuals, organisations and the broader community. As such, organisations of all sizes have a role to play in providing a mentally healthy workplace for all employees. Many workplace-specific actions designed to promote mental health have been developed nationally and internationally, and have been proven to be effective.

Organisations need to be encouraged and supported to understand mental health conditions, and their impact on individuals and the workplace. Further, business leaders need to drive and maintain actions that will create a mentally healthy workplace – for both the benefit of the organisation and all individuals within it.

To fully realise the benefits of actions to create a mentally healthy workplace, organisations need to consider the critical success factors for effective organisational change. These include commitment from organisational leaders, employee participation, development and implementation of policies, provision of the necessary resources and a sustainable approach. This work shows the ROI and benefits that can be realised by organisations that take action to improve workplace mental health. The analysis of the ROI is achieved by comparing research on mental health actions with proven benefits for the workplace with

information about the cost of implementing a given action within an organisation. The actions selected for this analysis span prevention, early intervention and rehabilitation/return to work and reflect a broader range of actions available to organisations. These seven actions selected as a basis for this analysis were:

- worksite physical activity programs
- coaching and mentoring programs
- mental health first aid and education
- resilience training
- CBT based return-to-work programs
- well-being checks or health screenings
- encouraging employee involvement.

This analysis shows that an investment into mental health in the workplace gives rise to a number of benefits to organisations, people with mental health conditions, co-workers, and clients. In the context of a range of economic pressures, this analysis supports the discussion on mental health and the imperative for business leaders to drive a commitment to creating mentally healthy workplaces.

Mental health in the workplace

Mental health conditions are common among the working-age Australian population and represent a significant cost both to organisations and to individuals. Around 45 per cent of Australians between the ages of 16 and 85 experience a mental health condition at some point in their lifetime.[1] In a given 12-month period, 20 per cent of Australians will have experienced a mental health condition.[2]

Mental health conditions are seen in all industries in Australia, but prevalence rates vary by industry and specific condition.

- ***Overall prevalence of mental health conditions*** is highest in the financial and insurance sector with 33 per cent of people experiencing a mental health condition. Thirty two per cent of people in the information media and telecommunication and the essential services (electricity, gas, water, waste) industries experience a mental health condition.[3]
- ***Substance use conditions*** are most prominent in the mining, construction, accommodation and food services sectors. [4]
- ***Anxiety conditions*** are most prominent in the IT, media, financial and insurance industries.[5]

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1 ABS, 2007 National Survey of Mental Health and Wellbeing: Summary of Results, Table 1, 23 October 2008, available <http://www.ausstats.abs.gov.au/ausstats/subscriber.nsf/0/6AE6DA447F985FC2CA2574EA00122BD6/$File/43260_2007.pdf>, accessed 12 August, 2013.

2 Ibid.

3 Calculated from data for mental health prevalence for any 12-month mental disorder and the number of people by industry. Prevalence and population data sourced from: Monash University, Labour Market Costs of Mental Illness in Australia, 2012; ABS, 2007 National Survey of Mental Health and Wellbeing: Summary of Results, Table 2, 23 October 2008; ABS, Population by industry division and size 2011-12, Cat no: 8155.0, available: < http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/8155.02011-12?OpenDocument >, accessed 12 August 2013.

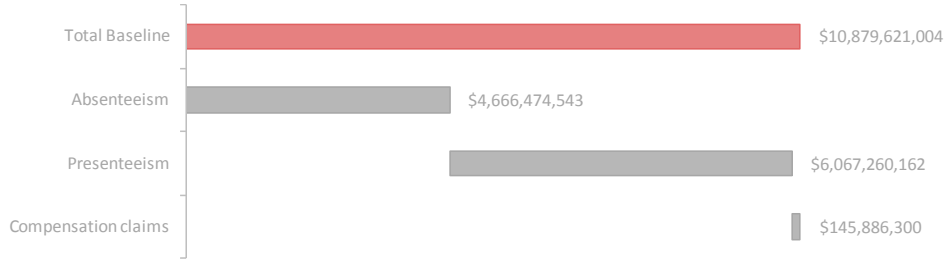
4 Ibid.

5 Ibid.

- ***Depression*** is most prevalent in the accommodation and food services, personal and other services, arts and recreation services, the professional, technical sector and essential services industries.[6]

This report measures the impact of mental health conditions as a total cost of absenteeism, presenteeism and compensation claims estimated in one year across all industries. It is estimated that mental health conditions have a substantial impact on Australian workplaces - approximately $11 billion per year. This comprises $4.7 billion in absenteeism, $6.1 billion in presenteeism and $146 million in compensation claims (see Figure 1). These estimates are similar to other studies which have analysed the impact of mental health in the workplace.

Figure 1: Baseline mental health condition impacts (per year), by individual impact[7]



The baseline for mental health condition impacts was calculated as a sum of three different impacts for every individual with a mental health condition in the workplace over a financial year.

Methodology

To complete the ROI analysis we (PwC) completed the following tasks:

- **Literature scan:** *beyondblue*, PwC and reference group members identified a number of documents from which source material for the ROI analysis was drawn.[8] This literature forms the basis of the assumptions included in the analysis.
- **Framework development:** The analysis is based on seven actions that form examples of interventions that businesses may implement targeted at achieving a mentally healthy workplace. Quantifiable impacts were identified and data for each component of the impact and actions to estimate the ROI of a mentally healthy workplace were considered. These included determining the prevalence of mental health conditions in the workplace, identifying effective actions for inclusion in the analysis and outlining cost and benefit components for quantification. Our framework (see Appendix E) provides a more comprehensive overview of the calculation of each element. In particular, the analysis focuses on the three areas of key benefit that occur as a result of the implementation of a workplace mental health action – reductions in absenteeism, presenteeism and compensation claims.
- **Analysis:** The model was developed and the baseline, costs and benefits were quantified to generate estimates for the ROI for investing in mental health. Seven actions were included in the analysis, and for each action the benefits and investment required (direct and indirect) were estimated. Some key assumptions include:

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6 Maureen Dollard & Mikaela Owen, Depression at Work in Australia, Results from the Australian Workplace Barometer project, 2013 & Monash University, Labour Market Costs of Mental Illness in Australia, Final Report, 30 June 2011.

7 A comprehensive list of data used in the calculation and their respective sources are found in Appendix E with the logic model.

8 Prevalence data for depression was provided and is listed in Appendix F.

  - For absenteeism, the cost is the average wage assessed against the amount of time taken off due to sick leave
  - Presenteeism has been assumed to be 50 per cent of the average wage which is a proxy for the person being at work but half as productive as normal. The assumption that workers are 50 per cent productive was discussed and agreed by the reference group
  - The impact of compensation claims is the sum of the average claims made due to mental health conditions
  - For the purpose of creating the base line, we have assumed that the number of days absent or worked at reduced productivity varies only by the severity of the individual's mental health condition.

  These assumptions are used to estimate the costs and benefits for all actions (as a group of seven actions) by size of organisation (drawing on the average size of an organisation). The ROI is the calculation of the total benefits estimated divided by the total investment.

- **Reporting:** Reporting on the key findings, which includes a summary of the ROI results and the methodology used.

The ROI for mental health

Understanding the ROI for implementing initiatives to create a mentally healthy workplace is an important factor in addressing mental health conditions at work. This ROI analysis identifies the benefits of addressing mental health conditions in the workplace, and compares this to the associated investment required as a ratio. A positive ROI is the point where the gains for an organisation (through improved productivity and fewer claims) are greater than the costs of implementing a mental health program.

The average ROI across all industries and actions for investing in a mental health initiative in the workplace is 2.3. This ROI is an average of the individual ROIs resulting from implementing appropriate actions in a combination of organisation size and industry. Each action included in the analysis will achieve a positive ROI at a different point after implementation depending on the size and industry of the business. Some actions will not be suitable for particular organisations. The ROI is where presenteeism, absenteeism and workers' compensation claims are reduced by 33 per cent. The average ROI is based on this point. However, a positive ROI will be achieved in most instances where these elements are reduced by much less than this.

A key assumption behind the ROI is that the action has been implemented effectively and as part of a broader commitment by an organisation to create a mentally healthy workplace. It is important to note that the ROI calculation is based on a single action - implementing a number of actions may have further benefits. Organisations should consider their industry, size and specific needs in determining the combination of actions that will result in the greatest benefits for their unique characteristics.

On average at the point where there is a 33 per cent reduction in presenteeism, absenteeism and workers' compensation claims:

- a person experiencing a mild mental health condition will experience 10 more productive hours per year
- a person with a moderate mental health condition will experience two fewer days absent and spend seven working days (52.5 hours) more time being productive at work per year
- a person with a severe mental health condition will experience over 13 fewer days absent and spend almost 17 working days (127.5 hours) more time being productive at work per year.

On business size, the analysis shows variances across the different categories. For example:

- *Small organisations* - the case for small organisations in particular industries to invest in mental health is compelling, for example, the Mining industry will receive an ROI of at least of 15 for implementing any one action. Small essential service providers receive an average ROI of 14.5. Other industries with consistently high ROIs include electricity, gas, water and waste services, and information, media and telecommunications.
- *Medium organisations* – Public administration and safety, mining, and electricity gas water and waste service organisations of medium size have a compelling case to invest in mental health actions as these industries experience positive ROIs across all actions.
- *Large organisations* - a common feature is lower ROIs compared to organisations of other sizes. The implication of this finding is that large organisations may need to implement actions on a team or group basis and engage local champions to ensure that the action remains targeted amongst employees. However, there are still high ROI for large organisations in the Public Administration and Safety and Mining industries.

Importantly, the results of this analysis are conservative as they do not consider the full range of costs to an organisation caused by untreated mental health conditions, such as high turnover. Estimates also do not include the many intangible benefits of a mentally healthy workplace for all employees, such as improved morale. This potential for additional benefits further reinforces the business case to invest in mental health.

Contents

1 Introduction

1.1 Mental health in the workplace – The return on investment

Mental health conditions are common amongst the adult Australian population and represent a significant cost both to organisations and to individuals. The Australian Bureau of Statistics (ABS) 2007 National Mental Health and Well-Being Survey (NMHWS) found that 45 per cent of Australians between the ages of 16-85 years of age experience a mental health condition in their lifetime.[9] In the twelve months prior to the survey, 20 per cent of Australians experienced a mental health condition whether anxiety, affective or substance use conditions.[10]

Organisations have a vital role to play in providing workplace environments that are mentally healthy. While many organisations are currently under a range of economic pressures, it is critical to state the importance of providing a mentally healthy workplace and the supporting ROI case. Organisations need to be supported to understand the importance and benefits of mentally healthy workplaces and be provided with appropriate information to effectively implement mental health actions. Well-supported organisations can in turn provide their staff with appropriate resources which will make the workplace more mentally healthy.

Workplaces look to respond to mental health conditions for multiple reasons, which include:

- Mental health conditions are common and affect working life for many adults
- The workplace can have an effect on mental health conditions and vice versa
- Absenteeism, reduced productivity and compensation claims cost Australian workplaces approximately $11 billion per year. The true cost of untreated mental health conditions is much higher when turnover and other impacts are considered.

Organisational and business leaders also have duties under work health and safety laws to do whatever is reasonably practicable to eliminate or minimise risks to workers' mental and physical health.

The ROI analysis will help raise awareness around the importance of addressing mental health conditions at work. An ROI analysis compares the benefits of creating a mentally healthy workplace with the associated investment required. This analysis finds that investing in mental health can provide significant returns to organisations.

Across Australia, if the impacts of mental health conditions through absenteeism, presenteeism and compensation are reduced by one third as a result of effective actions, there is an average positive ROI of 2.3.[11] A positive ROI is the point where the gains for an organisation (through improved productivity and fewer claims) are greater than the costs of implementing a mental health action. Reducing the impacts of mental health conditions by one third sets a 'breakeven point' where all organisations across all actions achieve a positive ROI. For most actions, the organisation is likely to achieve a positive ROI well before the breakeven point is reached. Therefore, depending on the industry and size of an organisation, there may be varying productivity gains generated from different mental health actions. A key assumption of the ROI analysis is that the given action is effectively implemented in accordance with organisational change management principles.

The ROI analysis estimates do not include intangible benefits enjoyed by all employees, such as increased engagement and morale, and the recruitment and retention of skilled staff. As a result, the analysis provides a

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9 ABS, 2007 National Survey of Mental Health and Wellbeing: Summary of Results, Table 1, 23 October 2008, available <http://www.ausstats.abs.gov.au/ausstats/subscriber.nsf/0/6AE6DA447F985FC2CA2574EA00122BD6/$File/43260_2007.pdf>, accessed 12 August, 2013.

10 Ibid.

11 The result of 2.3 is the calculated average ROI across all actions.

conservative estimate of the ROI. The potential for additional benefits further reinforces the business case to invest in mental health.

1.2 Objective of this analysis

The aim of this analysis is to estimate the ROI for employers investing in a mentally healthy workplace. Accordingly, the analysis will:

- estimate the cost to employers of mental health conditions
- estimate the costs and the ROI for implementing workplace mental health actions using an economic model and simulating different scenarios based on the workplace environment (scenarios for actions are detailed in Appendix F)
- deliver the overarching results of the analysis in a manner whereby the methodology is accessible and the results can be explained to employers and industry bodies.

The analysis is based on seven actions that form examples of interventions that businesses may implement targeted at achieving a mentally healthy workplace. The actions selected for this analysis span the intervention continuum (i.e. prevention, early intervention and rehabilitation/return to work) and reflect a broader range of actions available to organisations. Actions include:

- worksite physical activity programs
- coaching and mentoring programs
- mental health first aid and education
- resilience training
- CBT based return-to-work programs
- well-being checks or health screenings
- encouraging employee involvement.

1.3 Approach

For the ROI analysis we completed the following tasks:

- **Literature scan:** *beyondblue*, PwC and reference group members identified a number of documents for inclusion to inform this ROI analysis.[12] This literature forms the basis of the assumptions included in the analysis.
- **Framework development:** Quantifiable impacts were identified and data for each component of the impact and actions to estimate the ROI of a mentally healthy workplace was considered. These included determining the prevalence of mental health conditions in the workplace, identifying effective actions for inclusion in the analysis and outlining cost and benefit components for quantification. Our framework (see Appendix E) provides a more comprehensive overview of the calculation of each element. In particular, the analysis focuses on the three areas of key benefit that occur as a result of the implementation of a workplace mental health action – reductions in absenteeism, presenteeism and compensation claims.
- **Analysis:** The model was developed and the baseline, costs and benefits were quantified to generate estimates for the ROI for investing in mental health. Seven actions were included in the analysis, and for each action the benefits and investment required (direct and indirect) were estimated. Some key assumptions include:

[12] Prevalence data for depression was provided in Appendix F.

  - For absenteeism, the cost is the average wage assessed against the amount of time taken off due to sick leave
  - Presenteeism has been assumed to be 50 per cent of the average wage which is a proxy for the person being at work but half as productive as normal. The assumption that workers are 50 per cent productive was discussed and agreed by the reference group
  - The impact of compensation claims is the sum of the average claims made due to mental health conditions
  - For the purpose of creating the base line, we have assumed that the number of days absent or worked at reduced productivity varies only by the severity of the individual's mental health condition.

  These assumptions are used to estimate the costs and benefits for all actions (as a group of seven interventions) by size of organisation (drawing on the average size of an organisation). The ROI is the calculation of the total benefits estimated divided by the total investment.

- **Reporting:** Reporting on the key findings, which includes a summary of the ROI results and the methodology used.

Reference group

To achieve the objectives of the analysis, PwC established a reference group which comprised members from the National Mental Health Commission, *beyondblue*, academic experts in mental health and the workplace and representatives from different workplace contexts. The reference group provided a sounding board with which to:

- facilitate discussion about how the data and literature were interpreted
- test assumptions that are not easily sourced through data or literature (e.g. the cost of implementing mental health actions) allowing a more considered understanding of external factors in the analysis.

The reference group was a key component of the approach to deliver this ROI analysis, and played an important role in maximising acceptance and relevance of the results. Member names and organisations are contained in Appendix B.

2 Mental health in the workplace

2.1 Mental health in Australia and in the workplace

Mental health is everyone's business. Twenty per cent of Australians are expected to experience a mental health condition each year, making mental health a real issue to be addressed.[13] The mental health conditions most common in the workplace and the broader community are anxiety disorders, affective disorders (comprised of mood disorders such as depression) and substance use disorders.

- Affective conditions involve mood disturbance, or change in affect
- Anxiety conditions generally involve feelings of tension, distress or nervousness
- Substance use conditions involve the harmful use and/or dependence on alcohol and/or drugs.

Mental health conditions are seen in all industries, although some industries have a higher prevalence. Findings show that prevalence of mental health conditions is highest within the essential services (electricity, gas, water, waste), information media and telecommunication, financial and insurance services industries.

To provide some context, Table 1 outlines the size of key industries in Australia. The largest industries include the manufacturing, construction, and professional, scientific and technical services sectors. The highest prevalence of ***substance use conditions*** is experienced in the mining, construction, accommodation and food services industries (see Figure 2).

Table 1: Total employees (16 to 64 years) across industries[14]

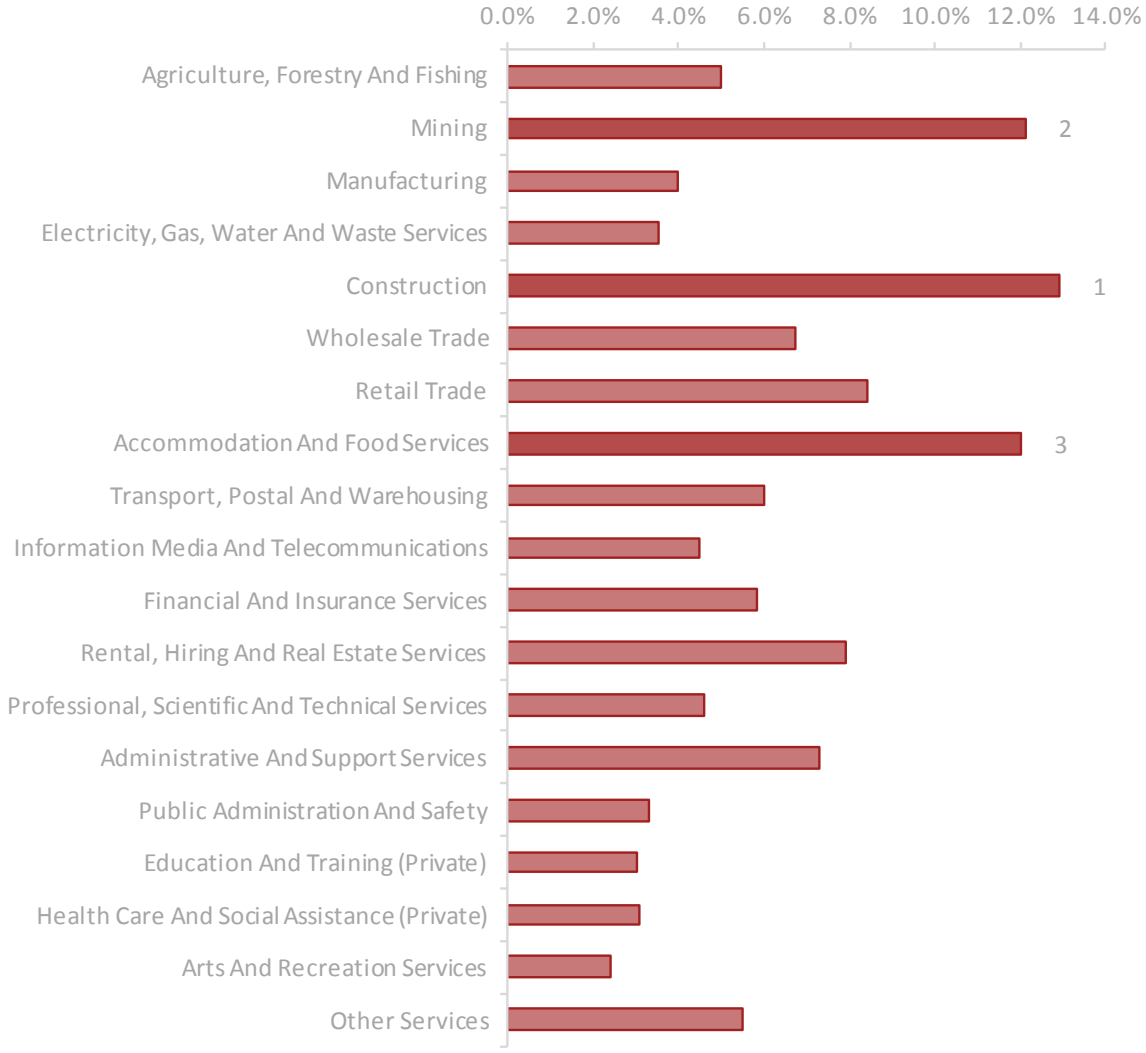
Industry	Total employees (15 to 64 years)
Agriculture, forestry and fishing	151,808
Mining	149,160
Manufacturing	705,590
Electricity, gas, water and waste services	94,922
Construction	625,229
Wholesale trade	305,654
Retail trade	488,740
Accommodation and food services	249,019
Transport, postal and warehousing	338,004
Information media and telecoms	129,115
Financial and insurance services	282,278
Rental, hiring and real estate services	107,170
Professional, scientific and technical services	512,753
Administrative and support services	172,981

[13] ABS 2008.

[14] Australian Bureau of Statistics, 2013 Australian Industry Divisions Cat No. 8155, Table 01, July 2013.

Industry	Total employees (15 to 64 years)
Public administration and safety	510,973
Education and training (private)	433,512
Health care and social assistance (private)	569,583
Arts and recreation services	73,201
Other services	239,176

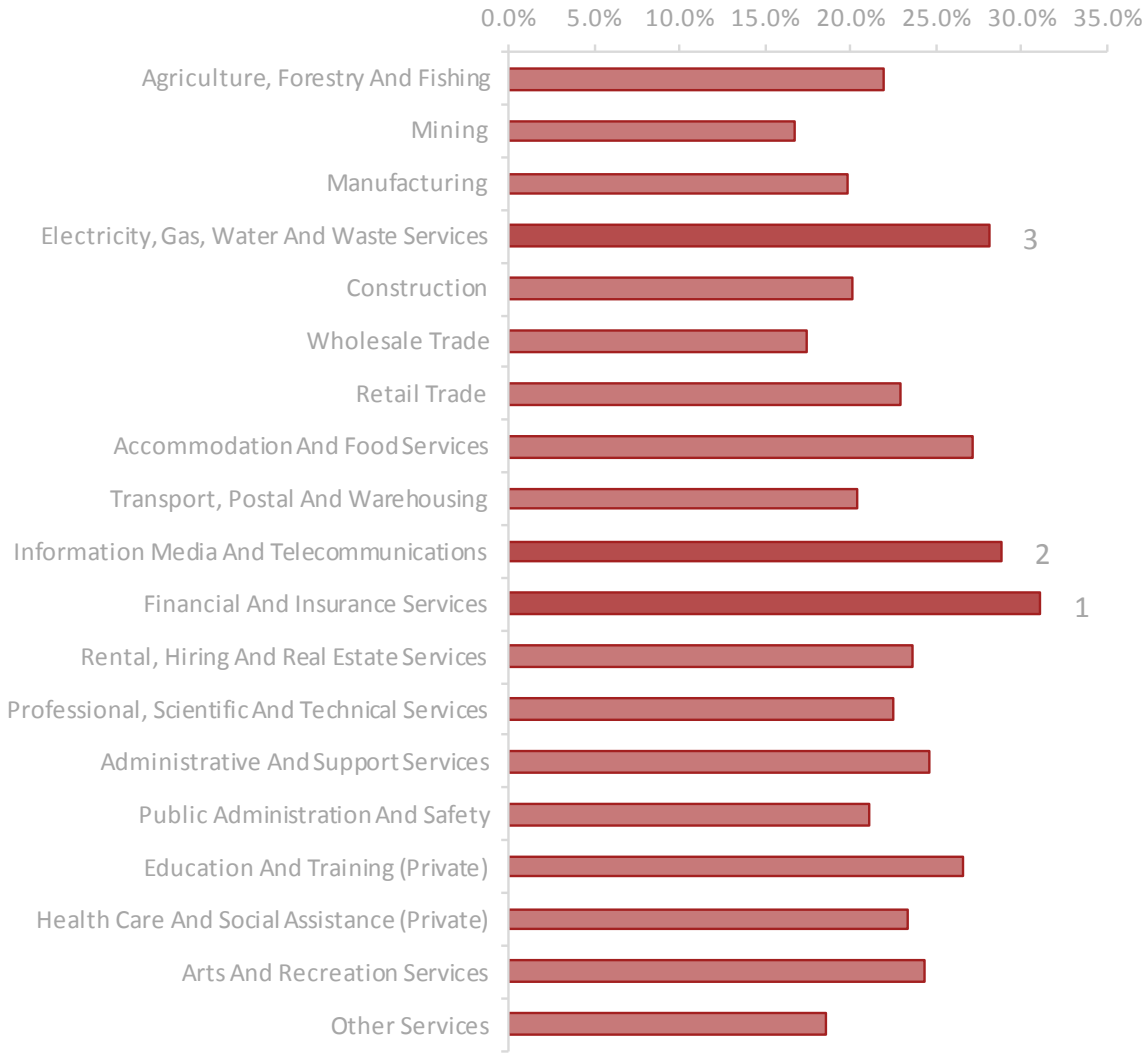
Figure 2: Substance use prevalence across industries over one year[15]



The highest prevalence of ***anxiety conditions*** is seen in the IT, media, financial and insurance industries (see Figure 3).

[15] Australian Bureau of Statistics, *2007 National Survey of Mental Health and Wellbeing: Summary of Results*, Table 2, 23 October 2008, available <http://www.ausstats.abs.gov.au/ausstats/subscriber.nsf/0/6AE6DA447F985FC2CA2574EA00122BD6/$File/43260_2007.pdf>, accessed 12 August, 2013.

Figure 3: Anxiety prevalence across industries over one year[16]



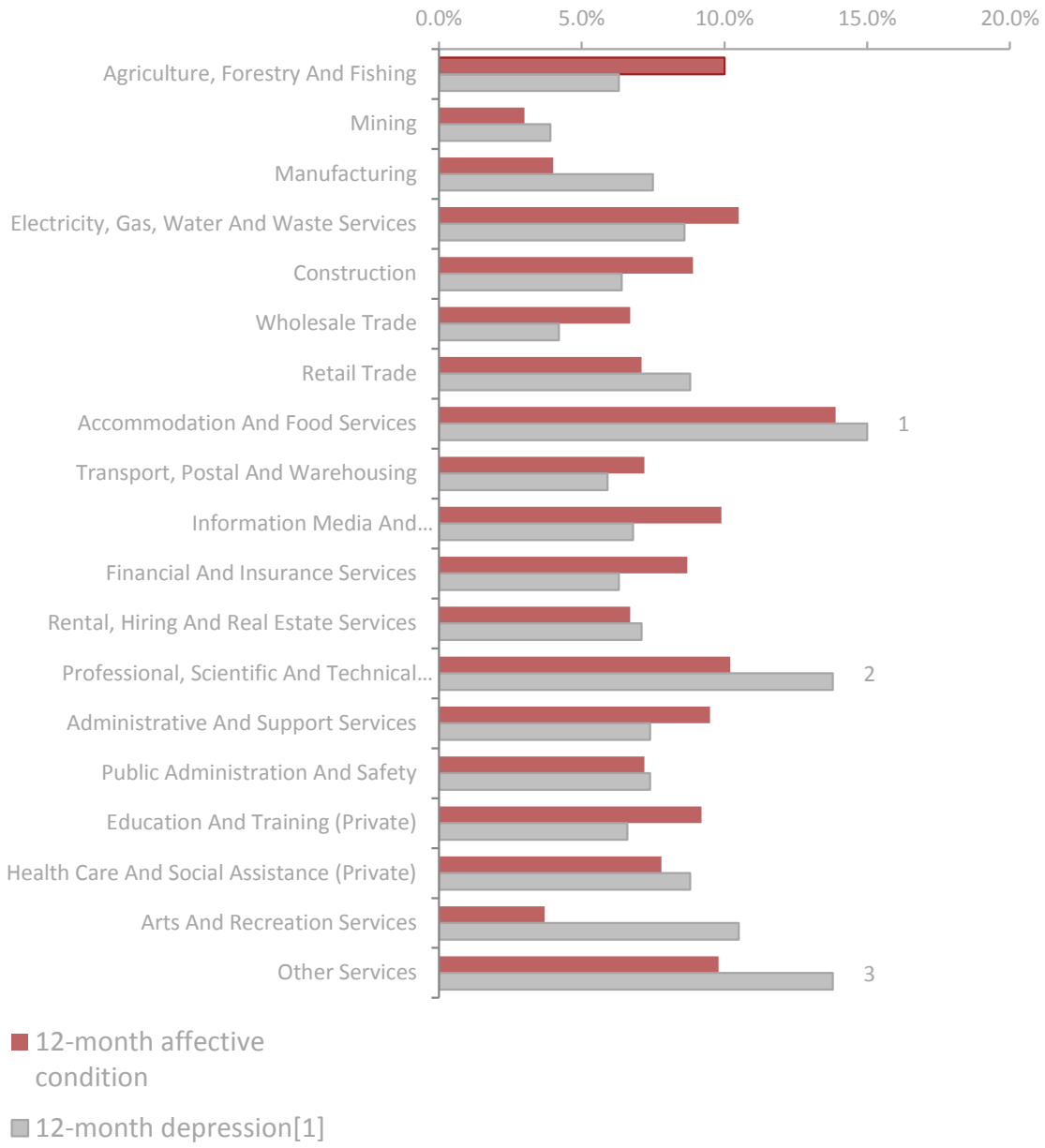
Affective conditions are most prevalent in the accommodation and food services industry, as well as in the professional, technical sector and essential services (electricity, gas, water, waste)[17] industries. Depression is most prevalent in the accommodation and food services, personal and other services, and arts and recreation services industries.[18] The next graph compares two sets of data – the first is from the Australian Workplace barometer and relates to depression specifically, and the second is data relating to affective disorders from the ABS 2007 National Survey of Mental Health and Wellbeing (SMHWB).

16 Australian Bureau of Statistics, *2007 National Survey of Mental Health and Wellbeing: Summary of Results*, Table 2, 23 October 2008, available <http://www.ausstats.abs.gov.au/ausstats/subscriber.nsf/0/6AE6DA447F985FC2CA2574EA00122BD6/$File/43260_2007.pdf>, accessed 12 August, 2013.

17 Monash University, Labour Market Costs of Mental Illness in Australia, Final Report, 30 June 2011.

18 Maureen Dollard & Mikaela Owen, Depression at Work in Australia, Results from the Australian Workplace Barometer project, 2013.

Figure 4: Affective condition prevalence across industries over one year[19]



Around three per cent of adults are severely affected by a mental health condition at any given point in time. The more severely disabling 'low prevalence' mental health conditions include schizophrenia, which affects approximately one per cent of Australians at some point in their life, bipolar disorder, which affects up to two per cent of Australians at some time during their life, other forms of psychosis and some chronic forms of

[19] Depression prevalence data is sourced from: Dollard, M. and Owen, M. 2013 'Depression at Work in Australia; Results from the Australian Workplace Barometer project', Centre for Applied Psychological Research, University of South Australia

Affective prevalence data is sourced from: Australian Bureau of Statistics, *2007 National Survey of Mental Health and Wellbeing: Summary of Results*, Table 2, 23 October 2008, available <http://www.ausstats.abs.gov.au/ausstats/subscriber.nsf/0/6AE6DA447F985FC2CA2574EA00122BD6/$File/43260_2007.pdf>, accessed 12 August, 2013.

depression. Of these, only 22 per cent of people with a psychotic disorder are in employment. This figure has remained steady over the previous 12 years.[20]

2.2 Workplace baseline impact of mental health conditions

The relationship between mental health and the workplace is complex. Although employers may assume that an individual's mental health condition has developed outside of the workplace, employees spend a significant proportion of their time at work. The workplace may contribute to the development or worsening of depression and anxiety conditions through factors such as organisational change,[21] job strain,[22] job dissatisfaction[23] and traumatic events.[24] On the other hand, for many employees, work may be a protective factor against the development of depression and anxiety conditions.[25]

Neither employers nor employees want a workplace which leads to poor mental health. A high prevalence of mental health conditions in the workplace is costly for employers. A critical starting point for organisations is ensuring that policies are developed and implemented which support employees to identify that they have a mental health condition, and access appropriate treatment and support.

The purpose of this report is to quantify the cost to employers of not taking action and the potential benefits of implementing workplace mental health actions.

As a first step to understanding the potential benefits to be gained from intervening in the workplace, it is necessary to understand the costs associated with poor mental health in a baseline scenario, where there are no actions.

Costs of mental health conditions to organisations which have been quantified include:

- ***absenteeism*** – the number of days taken off due to a mental health condition where the employer is paying for not having a person present to undertake the work
- ***presenteeism*** – the number of days where a person is less productive in their role due to their mental health condition
- ***compensation claims*** – quantified as the number of claims made per year by the average value of the claim.

For absenteeism, the cost is calculated as the average Australian wage multiplied by the amount of time taken off due to sick leave.

The assumption that workers are 50 per cent less productive due to presenteeism was discussed and agreed by members of the reference group based on their experience and knowledge. This value is then multiplied by the amount of time the person is assumed to be working but not as productive as normal.

For the purpose of creating the baseline, the analysis assumes the number of hours lost due to absenteeism and presenteeism varies only by the severity of the individual's mental health condition. For the sources of these baseline assumptions, refer to Appendix D.

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[20] Harvey et al. 2013.

[21] Harvey S., Joyce S., Modini M., Christensen H., Bryant R., Mykletun A. & Mitchell P. 2012, 'Work and depression/anxiety disorders – a systematic review of reviews', UNSW, *beyondblue* & Black Dog Institute, Sydney.

[22] VicHealth, 2010, 'Estimating the economic benefits of eliminating job strain as a risk factor for depression, available < http://www.vichealth.vic.gov.au/~/media/ResourceCentre/PublicationsandResources/Economic%20participation/Job%20strain/P-022-SC_Job_Strain_SUMMARY_October2010_V12.ashx >, accessed 2 May 2014.

[23] Harvey S., Joyce S., Modini M., Christensen H., Bryant R., Mykletun A. & Mitchell P. 2012, 'Work and depression/anxiety disorders – a systematic review of reviews', UNSW, *beyondblue* & Black Dog Institute, Sydney.

[24] Ibid

[25] Ibid.

Table 2: Baseline assumptions – hours of absenteeism and presenteeism attributable to a mental health condition

Severity of mental health condition	Hours of absenteeism per year	Hours of presenteeism per year
None	Assumes no additional absenteeism or presenteeism above workplace average due to mental health condition	
Mild	9	30
Moderate	45	150
Severe	300	378

For the purpose of the model, the prevalence data was scaled along the Kessler Scale for each mental health condition by industry. This forms a pivotal assumption of the analysis – that the more severe a person's mental health condition is, the more time the person will need off work or be less productive (refer to Table 2). These assumptions are held constant across the condition types because Hoffman et al. indicate that anxiety and depression conditions have similar levels of additional days attributable to absenteeism and presenteeism.[26] Hoffman et al. show that substance misuse conditions could be dealt with differently and the impacts in terms of absenteeism and presenteeism are potentially lower than for anxiety and depression.

For the purposes of this analysis, we have used the same baseline assumptions across each mental health condition. The costs arising from compensation claims are calculated by multiplying the number of claims in a given year by the average value of a compensation claim for that year (refer to Table 3).

Table 3: Baseline assumptions for compensation claims[27]

ANZSIC category	Number of claims for mental health disorders (FY11-12)	Typical size of compensation payment ($)	Industry size (total employees 15-64 years)
Agriculture, forestry and fishing	25	$27,200	151,808
Mining	50	$22,400	149,160
Manufacturing	355	$17,500	705,590
Electricity, gas, water and waste services	45	$31,200	94,922
Construction	200	$23,700	625,229
Wholesale trade	185	$22,200	305,654
Retail trade	505	$13,800	488,740

[26] Hoffman DL, Dukes EM, Wittchen HU. Human and economic burden of generalized anxiety disorder. Depress Anxiety 2008;25(1):72-90.

[27] Safework Australia, PwC Data Request, 2013, Note that the categories reported on by industry for Safework Australia are not reported on by ANZSIC category.

ANZSIC category	Number of claims for mental health disorders (FY11-12)	Typical size of compensation payment ($)	Industry size (total employees 15-64 years)
Accommodation and food services	255	$14,800	249,019
Transport, postal and warehousing	440	$11,000	338,004
Information media and telecommunications	45	$15,100	129,115
Financial and insurance services	185	$22,400	282,278
Rental, hiring and real estate services	555	$22,600	107,170
Professional, scientific and technical services	995	$27,100	512,753
Administrative and support services	318	$23,800	172,981
Public administration and safety	318	$23800	510,973
Education and training (private)	1,065	$20,200	433,512
Health care and social assistance (private)	1,705	$16,200	569,583
Arts and recreation services	105	$14,100	73,201
Other services	145	$13,500	239,176

The costs from absenteeism, presenteeism and compensation payments are some of the key costs of mental health conditions to organisations and the workplace. Other costs do exist, including:

- turnover
- costs to colleagues and other employees
- management costs
- incident costs
- income insurance payments for organisations.

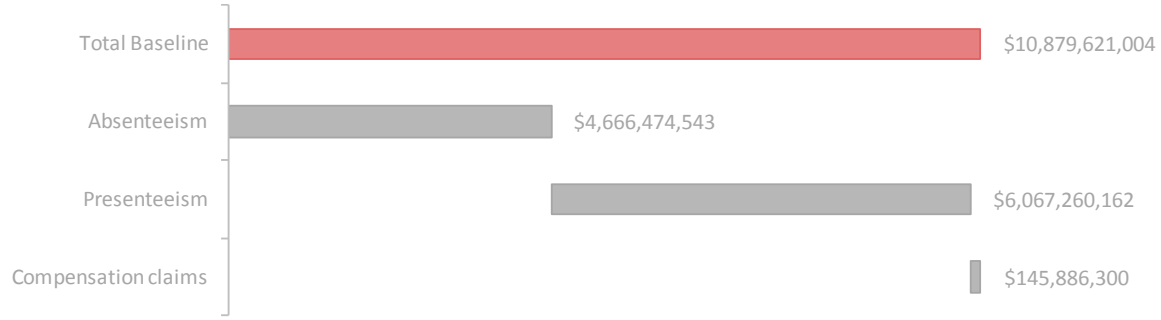
Quantifying the baseline across Australian workplaces

Across industries, mental health conditions will have an impact on employers' financial performance through absenteeism, presenteeism and compensation claims. These costs will be dependent on the prevalence of mental health conditions in the organisation.

The total baseline impact of untreated mental health conditions to Australian workplaces is substantial, at approximately $11 billion per year. This comprises $4.7 billion in absenteeism, $6.1 billion in presenteeism and

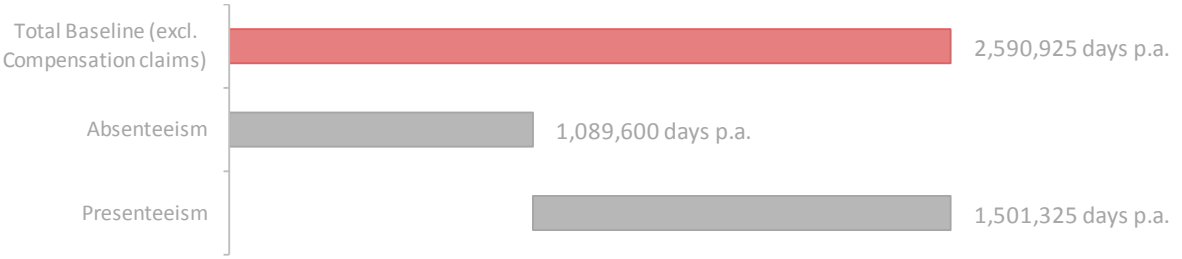
$146 million in compensation claims (see Figure 5).[28] These estimates are similar to other studies which have analysed the impact of mental health in the workplace. However, when comparing the opportunity cost found in this report with other published reports, care should be taken to acknowledge both differences in mental health conditions analysed and the nature of the impacts associated.

Figure 5: Baseline mental health condition impacts, by individual impact



The baseline for mental health condition impacts was calculated as a sum of three different impacts for every individual with a mental health condition in the workplace over a financial year. Absenteeism is calculated from assumptions around how much time an individual will take off work with a mental health condition by type and by severity. Similarly, presenteeism is a calculation of the expected time that an individual will be at work but not being productive in their role. The individual was assumed to be 50 per cent productive for the hours associated with presenteeism based on their mental health condition. Finally, the impact of compensation claims is the sum of the average claims made due to mental health conditions. For a more comprehensive description of the methodology and data used to calculate the baseline, refer to Appendix E. Absenteeism and presenteeism are experienced by both the employee and the organisation in terms of days. In one year, mental health conditions impact all Australian organisations by almost 1.1 million days of absenteeism and 1.5 million days of presenteeism.

Figure 6: Baseline mental health condition impacts, for absenteeism and presenteeism, by days p.a



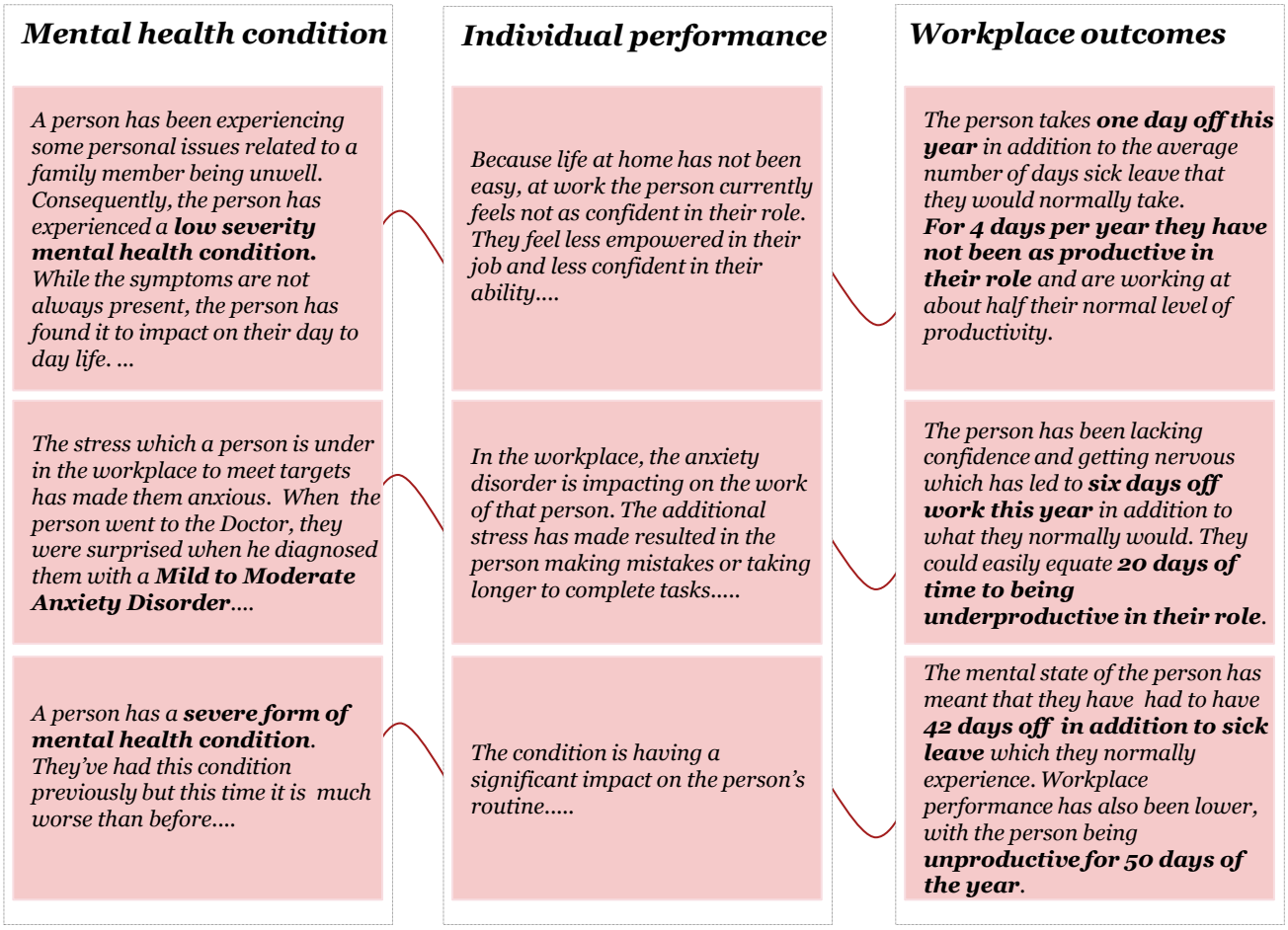
When seeking to understand the impact of untreated mental health conditions on the workplace, the cost is not isolated to those people experiencing the mental health condition. Therefore, taking action to improve the mental health of individuals is likely to be beneficial for the wider workforce. For the purposes of this analysis we have not evaluated the costs of mental health conditions borne by the wider workforce but it is worth noting that benefits exist beyond the analysis presented in this report.

Understanding the baseline for an individual

Mental health has a varied impact on the working life of individuals. Profiles of different hypothetical individuals experiencing mental health conditions and how their condition impacts on their performance are described in Figure 7.

[28] PwC calculations for absenteeism, presenteeism and compensation claims were formed from publicly available data sources. More detail of the sources used to inform the report is found in Appendix A.

Figure 7: Impacts of mental health conditions on individuals



Actions to create a mentally healthy workplace

Key actions to create a mentally healthy workplace include:

- creating a positive working environment
- building individual skills and resilience, and/or
- supporting staff with mental health conditions.

The successful implementation of an action to achieve a mentally healthy workplace is based on six critical success factors. These include:

- ***Commitment from senior organisational leaders and business owners*** - Organisational leaders and business owners must make visible, long-term commitments to improving and maintaining good mental health in their workplaces if they want to create lasting positive change.
- ***Employee participation*** - Employee participation is essential to improving mental health in the workplace. Employee input must be sought in every step, from planning through to implementation and review.
- ***Develop and implement policies*** - Policy lays the groundwork for action. It needs to be clearly articulated and flexible enough to meet the needs of the organisation or business.
- ***Resources necessary for success*** - Initiatives aimed at improving mental health in the workplace require adequate resourcing if they are to succeed.
- ***A sustainable approach*** - Initial success requires ongoing effort to be sustained permanently.
- ***Planning*** – Successful implementation will be well thought out, identifying the intended goals and objectives, including the inputs required – such as financial resources, time or additional staffing.

Understanding how the success of an initiative will be measured, and what will be required to sustain these efforts over time, will help realise the benefit.

For the purposes of this analysis, seven specific mental health actions have been used to calculate the ROI. These actions and their scope were selected based on the level of evidence supporting their effectiveness and the fact that they span the intervention continuum (i.e. prevention, early intervention and rehabilitation/return to work). The studies used are referenced in Appendix A. These actions have been used as a sample of a broader suite of evidence-based mental health actions that are available to organisations for implementation. Each action described below is an example of the type of action businesses may choose to implement. For example, there is a range of different effective approaches and models relating to coaching and mentoring which may positively impact on the mental health of individuals in the workplace. The scope of each action was based on approaches which are supported by published literature and defined to illustrate the kinds of initiatives organisations could adopt.

Table 4: Scope of mental health actions

Action	Scope of action
Worksite physical activity program	• A fitness provider provides 1 hour per week of exercise outside of work hours for 20 weeks • Provided to **~50%** of employees in classes of 6 – 8 people • **1, 2** and **25** classes run in small, medium and large organisations respectively
Coaching and mentoring, e.g. cognitive behavioural-based leadership coaching	• The action is provided to executives (**~5%** of the workforce) • The action has three components: a 360 feedback tool, a half-day leadership workshop and 4 individual coaching sessions
Mental health first aid and education	• Selected employees are trained to provide support to others in the workplace • The action provides training to **~30%** of the employees who volunteer for the training twice per year
Resilience training	• The action provides training to develop resilience for stressful situations • **1-2** employees are instructed in becoming drivers of and instructors for the training • The training is provided to **1, 3 and 50** people within an organisation (small, medium and large respectively)
CBT based return-to-work programs	• Occupational therapists provide training to those returning to work from long leave of absence • **~5%** of workforce have a long leave of absence which will be equivalent to **1, 2** and **26** people within small, medium and large organisations
Well-being checks or health screening	• The action targets people with a substance use condition in the previous 12 month period • An external service provider discusses policies, and provides a supervisory training program and a helper program • Policies are discussed on a whole-of-organisation basis • Programs are provided to **~20% of employees**
Encouraging employee involvement	• The action uses a web-based psychological assessment survey to assess measures relating to job control, health, absence and acceptance • The survey is provided to **all employees** in the organisation and reviewed on an individual level and on an aggregate basis

A key assumption behind the ROI is that the action has been implemented effectively and as part of a broader commitment by an organisation to create a mentally healthy workplace. This broader commitment will need to include a range of critical success factors, as outlined above.

Some of the actions selected for the ROI analysis focus on changing a worker's behavioural responses. It is important for organisations to consider actions which aim to eliminate or minimise risks to the mental health of staff (e.g. excessive or unreasonable workloads). Organisational leaders and business leaders also have duties under work health and safety legislation to do whatever is reasonably practicable to control risks to workers' mental and physical health.

Due to the nature of the analysis it was not feasible to include an employee assistance program (EAP), or manager assistance program (MAP) as one of the actions for analysis. It is recognised that many larger organisations provide these programs for staff and managers and they may be an effective component of a broader workplace mental health program.

3 Return on investment

3.1 Implementation costs for mental health actions

The costs of actions discussed in this analysis are presented from the employer's perspective. Each action's cost assumptions were developed taking into account organisation size and implementation approach. In order to formulate these organisation costs, the average size of a small, medium or large organisation (average across all industries) in Australia was calculated. These averages are:

- small organisations – 6 six employees (FTE) (this group of organisations includes "microbusinesses")
- medium organisations – 34 employees (FTE)
- large organisations – 517 employees (FTE)[29]

The range of associated costs were considered where appropriate and classified according to:

- input category (e.g. salaries, and capital)
- program activity (e.g. administration)
- organisational level (e.g. head office)
- financing agent (e.g. government, industry, not for profit, or household).

Direct costs are assumed the same for organisations across industries, though they vary by business size. Indirect cost assumptions are based on the average time spent by employees within an organisation in implementing a workplace mental health action. Indirect costs are assumed to vary by organisation size and industry given that they are driven by the average wage.

Costs are distinguished between those incurred only at the start of the action and those that recur every year. The main types of investment and recurrent costs are initial capital and investment costs, operating costs, including wages and salaries, and those costs which cannot be valued in monetary terms (intangibles). The actions were assumed to be implemented in one year. The analysis shows that costs can vary from $600 for a small organisation investing in a single mental health action to over $150,000 for a large organisation investing in a similar action. Indirect costs can also vary from under $10 for small organisations to over $6,000 for large organisations.

3.2 Benefits of actions to improve mental health

A number of actions (outlined in Table 6) have been shown to address the impact of mental health conditions in the workplace. These actions and their scope were selected based on the level of evidence supporting their effectiveness and the fact that they span the intervention continuum (i.e. prevention, early intervention and rehabilitation/return to work). The studies used are referenced separately in Appendix A. The published literature often reports results in terms of improvements to mental health conditions according to a mental health score, such as the Kessler 10 or the General Health Questionnaire (GHQ). Some studies report on the impact of the action on absenteeism or presenteeism and others describe benefits in a qualitative manner. The primary benefits as described in the mental health literature are listed in Table 5.

[29] Australian Bureau of Statistics, 2013 Australian Industry Divisions Cat No. 8155, Table 01, July 2013.

Table 5: Summary of the specific associated benefits identified in this analysis based on existing research evidence

Benefits	Specific examples of where benefits were identified in the literature
Reduced absenteeism	• Shorter sickness leave periods • Reduction in days of work missed under the effects of alcohol or other substances • Lower incidence of recurrence
Increased productivity or reduction in presenteeism	• Increased number of hours worked • Improved resilience • Increase in goal attainment • Reduction in early retirement • Reduction in days worked under the effects of alcohol or other substances
Reduction in compensation claims	• Early action • Reduction in social isolation of people experiencing mental health conditions

The main assumption underpinning this ROI analysis is that the relevant mental health actions have had a positive impact on employee mental health, therefore reducing the impact of absenteeism, presenteeism and resulting in a decrease in compensation claims. Assumptions to quantify the impact of absenteeism, presenteeism and compensation are based on average wage by industry:

- each hour lost to absenteeism is valued directly using an average wage figure on a one-to-one basis
- each hour spent in presenteeism is valued as half an hour using an average wage figure (assuming that even if the employee is not at full capacity they are likely to undertake some work)
- compensation claims are valued using the average amount of a compensation claim for a serious mental health condition in a given year.

These assumptions are held to be consistent across all industries and for all mental health conditions targeted by the action. While these assumptions remain constant, the ROI will differ by organisation due to the varying costs and prevalence levels that are unique to each industry.

Other benefits associated with the seven mental health actions are:

- reduction in turnover
- lower management costs
- reduced incident costs
- lower income insurance costs for the organisation.

These benefits have not been included in the calculations within this report. There are several information availability constraints for these calculations including:

- the literature scan did not give sufficient guidance on whether there was a statistical effect or had not measured the benefit in a way which could be appropriately linked to the benefit
- data by industry is not recorded, for example, data on turnover by industry sector is not available

The attributed benefits are assumed to be the same for each action. The literature scan identified the statistically significant impact of each action which could be linked to a reduction in absenteeism, presenteeism or compensations claims. However, statistical significance does not enable an assumption to be drawn for the size of the effect of each of the selected action programs.

Assumptions for effect size (i.e. the extent to which each action impacts on productivity and workers' compensation claims) were not drawn from this literature base because conclusions are not based on robust methodologies as those in randomised controlled trials are.[30] Therefore, to assess the ROI that is generated by these selected actions, several different effect sizes have been modelled. In addition, the modelling tested the ROI for the chosen actions, and identified the lowest effect size needed to generate a positive ROI. It is also important to note that the actions selected do not consider research on an organisation's culture and climate. These factors would also influence the suitability of actions that are implemented by an organisation.

3.3 The return on investment

Understanding the ROI analysis is an important part of raising awareness about why mental health conditions at work need to be addressed. An ROI analysis compares the benefits of creating a mentally healthy workplace with the investment required. This analysis finds that investing in mental health generates a positive return to organisations if there is a one third improvement in the impact of employees' mental health conditions in the workplace. Industry and organisation size are important factors when considering approaches to achieving a mentally healthy workplace.

The baseline establishes that, on average, employees experiencing a mental health condition will be less productive than those who are not experiencing a mental health condition. The primary quantifiable differences take the form of more absenteeism, more presenteeism and an increased likelihood to claim on workers' compensation for a mental health issue.

The results of this analysis are reported as an estimate of the 'breakeven' point for an organisation to experience a positive ROI from implementing one mental health action. This is because:

- the cost to implement an action varies by industry and organisation size
- this analysis does not develop assumptions for the effect size of actions
- it is likely that the benefits for each action are not entirely cumulative. That is, when multiple actions are implemented in the same workplace it is likely that there will be a crossover in benefits. For example, two actions are unlikely to result in double the decrease in absenteeism.

Combined with industry prevalence data and information about how to develop a broad mental health strategy, this analysis will provide organisations with an indication of the expected ROI for taking action to improve the mental health of their workplace.

Key findings

Key findings from the ROI analysis are as follows:

- Mental health conditions present substantial costs to organisations. However, through the successful implementation of an effective action to create a mentally healthy workplace, organisations, on average, can expect a positive return on investment (ROI) of 2.3. That is, for every dollar spent on successfully implementing an appropriate action, there is on average $2.30 in benefits to be gained by the organisation.
- These benefits typically take the form of improved productivity, via reduced absenteeism and presenteeism (reduced productivity at work), and lower numbers of compensation claims.
- Implementing multiple targeted actions is likely to lead to further increases in ROI, noting that the cumulative benefits of multiple actions will be less than the sum as action may apply to the same group of employees.
- The productivity gains generated from different actions may vary depending on the industry and size of an organisation.

[30] Coe, 2002.

- Actions tend to be more effective when implemented in smaller sized organisations because the single most critical success factor is employee participation. This may mean that actions are best implemented on a team or group basis in larger organisations.
- In order to achieve a positive ROI, organisations will need to have addressed the critical success factors for change. In particular, implementing one or several actions is unlikely to be effective unless there is leadership and management support for improving the culture and mental health of the workplace.

On business size, the analysis shows variances across the different categories. For example:

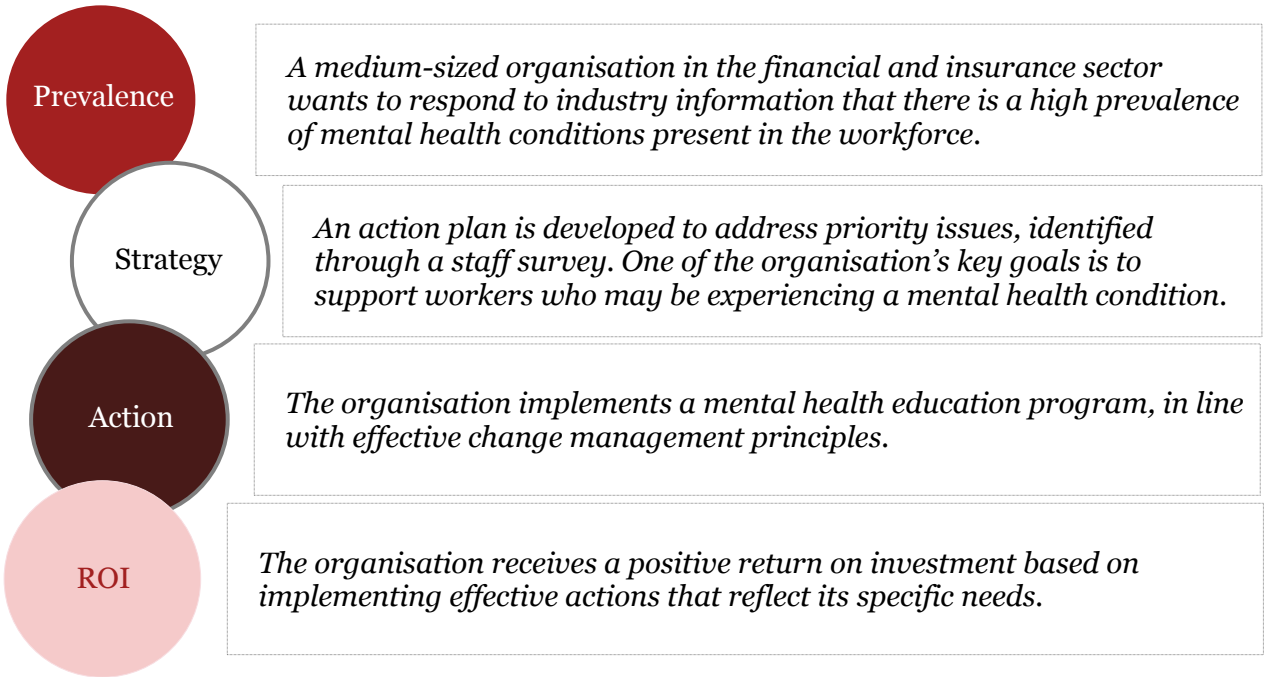
- *Small organisations* – the case for small organisations in particular industries to invest in mental health is compelling, for example, the Mining industry will receive an ROI of at least of 15 for implementing any one action. Small essential service providers receive an average ROI of 14.5. Other industries with consistently high ROIs include electricity, gas, water and waste services, and information, media and telecommunications.
- *Medium organisations* – Public administration and safety, mining, and electricity gas water and waste service organisations of medium size have a compelling case to invest in mental health actions as these industries experience positive ROIs across all actions.
- *Large organisations* – a common feature is lower ROIs compared to organisations of other sizes. The implication of this finding is that large organisations may need to implement actions on a team or group basis and engage local champions to ensure that the action remains targeted amongst employees. However, there are still high ROI for large organisations in the Public Administration and Safety and Mining industries.

Case example

This analysis has been designed as a tool for organisations to assist them to implement workplace strategies to improve mental health. The stylised example below shows how an organisation might consider what strategy to adopt in order to make their workplace more mentally healthy.

An organisation may want to respond in a proactive and supportive way to rising concerns about the prevalence of mental health conditions as shown in Figure 8.

Figure 8: Response to high prevalence of a type of mental health condition



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The University of New South Wales (UNSW), *Workplace and depression/anxiety disorders – a systematic review of reviews*, December 2012.

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Appendix B Reference Group

The reference group provided support on the framework and the assumptions of this analysis. The Reference Group has discussed and validated the inputs to the analysis, but not its associated results.

Reference group meetings were held on two occasions with the following agendas:

- the ROI framework (13/09/2013)
- the assumptions for the ROI analysis (9/10/2013).

Table 6: Reference Group

Name	Organisation
Therese Fitzpatrick	*beyondblue*
Nick Arvanitis	*beyondblue*
Tom Abbott	National Mental Health Commission, Senior Policy and Project Officer
Mary Jo Fisher	Printing Industries Association of Australia Senior Advisor, Workplace Relations and Legal Services
Maureen Dollard	Professor, School of Psychology, Social Work and Social Policy
Sarah Marshall	Lendlease
Dr Sam Harvey	School of Psychiatry, Senior Lecturer UNSW and Black Dog Institute
Khuan Vongdara	PwC

Appendix C Prevalence of mental health conditions in the workplace

The top three industries with the highest prevalence rates for each mental health condition are shaded.

Table 7: Prevalence of mental health conditions over the past 12 months by ANZSIC industry divisions

Industry by ANSZIC divisions	Any mental condition	Substance use condition	Affective condition	Anxiety condition
Agriculture, Forestry and Fishing	26.9%	5.0%	10.0%	21.9%
Mining	22.7%	12.1%	3.0%	16.7%
Manufacturing	20.5%	4.0%	4.0%	19.8%
Electricity, Gas, Water and Waste Services	31.6%	3.5%	10.5%	28.1%
Construction	25.1%	12.9%	8.9%	20.1%
Wholesale Trade	22.5%	6.7%	6.7%	17.4%
Retail Trade	26.7%	8.4%	7.1%	22.9%
Accommodation and Food Services	31.4%	12.0%	13.9%	27.2%
Transport, Postal and Warehousing	23.0%	6.0%	7.2%	20.4%
Information Media and Telecommunication	31.5%	4.5%	9.9%	28.8%
Financial and Insurance Services	33.0%	5.8%	8.7%	31.1%
Rental, Hiring and Real Estate Services	29.2%	7.9%	6.7%	23.6%
Professional, Scientific and Technical	26.1%	4.6%	10.2%	22.5%
Administrative and Support Services	28.5%	7.3%	9.5%	24.6%
Public Administration and Safety	23.3%	3.3%	7.2%	21.1%
Education and Training	28.2%	3.0%	9.2%	26.6%
Health Care and Social Assistance	25.7%	3.1%	7.8%	23.4%
Arts and Recreation Services	24.4%	2.4%	3.7%	24.4%
Other Services	23.5%	5.5%	9.8%	18.6%

Note: Shaded cells indicate the three industries with the highest prevalence by mental health condition category. Co-morbidities occur and therefore prevalence of any mental health condition experienced in the last 12 months will not equal prevalence of substance use, affective and anxiety conditions.

Appendix D Baseline assumptions

Actions were scaled along the prevalence of a mental health condition by severity. Assumptions were then made around the levels of absenteeism and presenteeism. The approach was developed from the bottom up. For the purposes of the analysis, the mild and moderate mental health conditions in the literature had similar impacts on absenteeism and presenteeism.

Table 8: Absenteeism

Severity of mental health condition	Additional hours	Equivalent additional days	Source
Absenteeism			
None	0	0	PwC Scaling Assumption, Collins et al 2005, Lerner D et al 2004, the NCQA Quality Dividend Calculator™ 2012
Mild	11	1	
Moderate	48	6	
Severe	312	42	
Presenteeism			
None	0	0	PwC Scaling Assumption, Collins et al 2005, Lerner D et al 2004, the NCQA Quality Dividend Calculator™ 2012
Mild	30	4	
Moderate	150	20	
Severe	378	50	

Appendix E Detailed ROI estimates by organisation size and industry

Detailed findings by size of organisation and industry

Findings show that certain industries are likely to have a higher ROI as a result of implementing actions to promote the mental health of their workforce. Mining, as well as electricity, gas, water and waste services industries achieved ROI figures among the top five for every size of organisation. Similarly information, media and telecommunications industry ROI figures are in the top five for every size of organisation. The results are influenced by the high levels of prevalence found in those industries for different mental health conditions. Results are contained in Table 9.

Table 9: ROI for organisations

Industry	All	Average of small, medium and large
Agriculture, forestry and fishing	1.0	0.5
Mining	5.7	6.8
Manufacturing	3.5	2.9
Electricity, gas, water and waste services	5.7	6.7
Construction	2.5	1.5
Wholesale trade	3.4	2.6
Retail trade	1.5	1.2
Accommodation and food services	1.0	0.7
Transport, postal and warehousing	2.8	2.0
Information media and telecommunications	4.2	4.2
Financial and insurance services	3.6	2.5
Rental, hiring and real estate services	1.0	0.7
Professional, scientific and technical services	2.6	1.7
Administrative and support services	1.1	0.9
Public administration and safety	5.7	3.6
Education and training (private)	2.8	2.3
Health care and social assistance (private)	3.0	2.5
Arts and recreation services	1.6	1.2
Other services	1.7	1.0

Model logic

This section includes an overview of the model in the benefits realisation schematic. The program logic guided the assumptions regarding costs, which are aligned to the required inputs and outputs and the benefits, which are aligned to the outcomes.

There were three impacts found to be quantifiable based on the evidence available for the actions. The three impacts included absenteeism, presenteeism and compensation claims. The methodology initially looks at the baseline and quantifies the cost of each of these impacts (absenteeism, presenteeism and compensation claims) for the workplace if the workplace was not to implement any action. Each impact is calculated differently. Absenteeism is the cost to the workplace from a person having to take additional days off work due to their mental health condition. Presenteeism is the cost of the reduced productivity of a person who is at work but has a mental health condition. Presenteeism was assumed to reduce productivity of a working person by

50 per cent.[31] Finally the cost of compensation claims are those faced by a workplace from individuals with mental health conditions.

The baseline was then compared to the assumed impacts of implementing each of the actions identified and quantified in Appendix F. Each action was modelled to take into account the direct and indirect costs for different sized organisations (small, medium and large). Direct costs included the cost of the services and materials required to implement. Indirect costs were based on the loss in productivity from implementing the action. The costs for each organisation were scaled based on the assumed organisation size. Based on the data therefore there was not a linear relationship between small, medium and large organisations.

As there was limited information on the impact of each action on the baseline cost, all actions were assumed to have the same impact on absenteeism, presenteeism and compensation claims. Consultation with the reference group confirmed that understanding the actual size of the impact would require a randomised control trial for each action. The assumed size of the impact was therefore used as a basis to form the minimum threshold at which a positive ROI could be found for all actions. In reality, there would not need to be an impact of this size to achieve a positive ROI for all businesses.

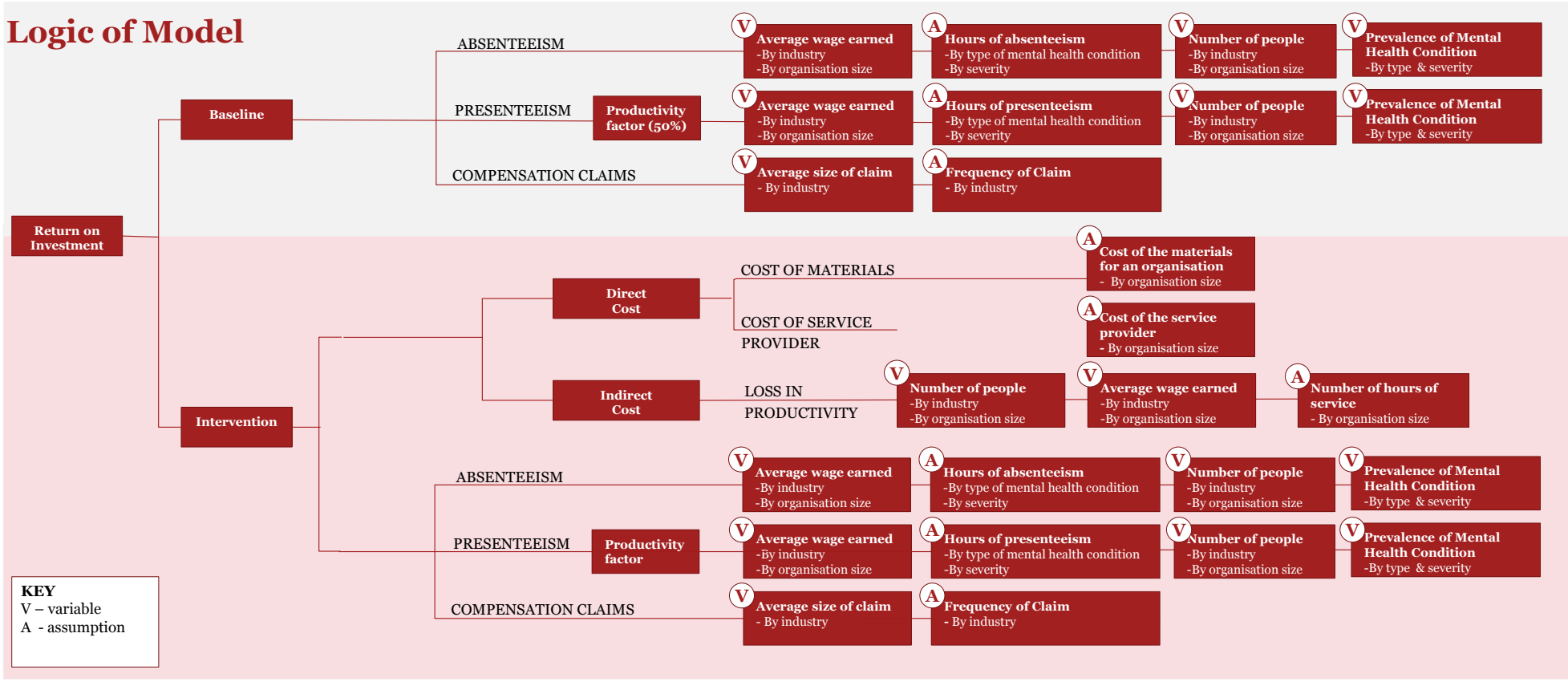
The ROI was calculated as the difference in the cost of the baseline for an organisation and the reduced cost of implementing the action, for every dollar invested. The result of 2.3 ROI is therefore $2.30 returned to an organisation from investing $1 in a mentally healthy workplace. The 2.3 ROI is an average across all organisations and actions. Therefore, an ROI can also be found by size of organisation, and industry.

Benefits realisation schematic

The benefits realisation framework has been used to map aggregated benefits and consider the stakeholders involved. While the employer is the stakeholder that bears the cost of the mental health action, there are also personal costs experienced by the employee that are not quantified. As such, we have used the term 'organisation' to capture the impacts, in terms of both costs and benefits, to ascertain that these are realised by both the employers and the employees, including those experiencing mental health conditions directly as well as their colleagues.

[31] There are cases where individuals with a mental health condition are more productive in the workplace. This is an assumption based on literature read for the report.

Figure 9: Logic of model



Appendix F Actions

This appendix provides additional information on the initiatives included in this analysis, as a sample of a broader group of initiatives. Seven actions were used to illustrate the characteristics of an effective action. These actions were identified in the literature review and selected as examples of workplace strategies which can be implemented by an organisation, and have been proven to be effective. In practice there will be variations as to how actions can be implemented and a broader set of actions may apply. The actions that were selected for analysis were:

- ***Worksite physical activity programs*** are based on the relationship between physical health and mental health, and engage workers in a physical exercise program once or twice a week. Worksite physical activity programs have been shown to elevate psychological scores as well as reducing the risk of absenteeism and depression. [32]
- ***Coaching and mentoring programs*** are designed to empower workers, and have been shown to reduce levels of depression. The action provides coaches with a range of cognitive and behavioural tools and techniques, and involves regular meetings and goal setting to improve a worker's well-being.[33]
- ***Mental health first aid and education*** is a 12-hour course designed to teach workers how to provide initial support to adults who are developing a mental condition or experiencing a mental health crisis. This action can provide greater confidence in providing help to others, increased likelihood of advising people to seek professional help and improved coordination with mental health professionals. [34]
- ***Resilience training*** initiatives require a significant investment of time and emotion. The action selected for this analysis involved five half day sessions, run by an occupational physician, to train small groups in a variety of stress management skills. These types of programs can result in decreased depressive symptoms and reduced intentions to retire early. [35]
- ***CBT based return-to-work programs*** are useful when workers are returning to work after experiencing mental health problems. This type of program is based upon a CBT approach to workplace integration and focuses on sessions to understand the causes of workplace stress and develop practical strategies to manage stress in the workplace. [36]
- ***Well-being checks or health screening*** can be used as a form of workplace action to address attitudes that may lead to mental health problems. The action program selected for this analysis involved 10 hours of supervisory training, a three day workshop to clarify issues and guidelines, and a peer-to-peer program to embed lessons. Programs have shown to decrease both absenteeism and presenteeism resulting from mental health problems.[37]

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[32] Harvey S., Joyce S., Tan L., Johnson A., Nguyen H., Modini M., Groth M. 2013, Developing a mentally healthy workplace: A review of the literature, UNSW, *beyondblue* & Black Dog Institute, Sydney. Bernaards C M, Jans M P, van den Heuvel S G, Hendriksen I J, Houtman I L, Bongers P M. 2006, Can strenuous leisure time physical activity prevent psychological complaints in a working population?. Occupational and Environmental Medicine, 63:10–16. Brand R, Schlicht W, Grossman K, Duhnsen R. 2006, Effects of a physical exercise intervention on employees'perceptions quality of life: a randomized controlled trial. Sozial- und Praventivmedizin, 51(1):14-23.

[33] Grant AM, Curtayne L, Burton G. 2009, Executive coaching enhances goal attainment, resilience and workplace well-being: A randomised controlled study. The Journal of Positive Psychology 4(5):396-407.

[34] Harvey S., Joyce S., Tan L., Johnson A., Nguyen H., Modini M., Groth M. 2013, Developing a mentally healthy workplace: A review of the literature, UNSW, *beyondblue* & Black Dog Institute, Sydney. Kitchener BA, Jorm AF. 2004, Mental health first aid training in a workplace setting: A randomized controlled trial (ISRCTN13249129). BMC Psychiatry, 23.

[35] Harvey S., Joyce S., Tan L., Johnson A., Nguyen H., Modini M., Groth M. 2013, Developing a mentally healthy workplace: A review of the literature, UNSW, *beyondblue* & Black Dog Institute, Sydney. Vuori J, Toppinen-Tanner S, Mutanen P. Effects of resource-building group intervention on career management and mental health in work organizations: randomized controlled field trial. J Appl Psychol 2012;97(2):273-86.

[36] Harvey S., Joyce S., Tan L., Johnson A., Nguyen H., Modini M., Groth M. 2013, Developing a mentally healthy workplace: A review of the literature, UNSW, *beyondblue* & Black Dog Institute, Sydney. van der Klink JJL, Blonk RWB, Schene AH, van Dijk FJH. 2003, Reducing long term sickness absence by an activating intervention in adjustment disorders: a cluster randomised controlled design. Occupational and Environmental Medicine 60(6):429–37.

[37] Stoltzfus J. A., Benson P.L. 1994, 'The 3M alcohol and other drug prevention program: Description and evaluation'. Journal of Primary Prevention Winter, V 15, Issue 2, pp 147-159.

- ***Encouraging employee involvement*** involves administering a survey to all workers within an organisation. The survey can be used to assess a number of measures, including job control, health, absence and acceptance. The results of the survey can then be used to target specific issues which may impact the mental health of the workforce and identify other action programs that may benefit the organisation. Programs have been seen to improve general mental health and absence rates.[38]

The scope and audience of each action are based on those cited in literature (described in Table 10).

Table 10: Scope of mental health actions

Action name	Scope of action
Worksite physical activity program	• A fitness provider provides 1 hour of exercise outside of work hours for 20 weeks • Provided to **~50%** of employees in classes of 6 – 8 people • **1, 2** and **25** classes run in small, medium and large organisations respectively
Coaching and mentoring, e.g. cognitive behavioural based leadership coaching	• The action is provided to executives (**~5%** of the workforce) • The action has three components: a 360 feedback tool, a half-day leadership workshop and 4 individual coaching sessions
Mental health first aid and education	• Selected employees are trained to provide support to others in the workplace • The action provides training to **~30%** of the employees who volunteer for the training twice per year
Resilience Training	• The action provides training to develop resilience for stressful situations • **1-2** employees are instructed in becoming drivers and instructors for the training • The training is provided to **1, 3 and 50** people within an organisation (small, medium and large respectively)
CBT based return-to-work programs	• Occupational therapists provide training to those returning to work from long leave of absence • **~5%** of workforce have long leave of absence which will be equivalent to **1, 2** and **26** people within the organisation of small, medium and large sizes
Well-being checks or health screening	• The action targets people who have been diagnosed with a substance use condition in the previous 12 month period • An external service provider discusses policies, and provides a supervisory training program and a helper program • Policies are discussed on a whole-of-organisation basis • Programs are provided to **~20% of employees**
Encouraging employee involvement	• The action uses a web-based psychological assessment survey to assess measures relating to job control, health, absence and acceptance • The survey is provided to **all employees** in the organisation and reviewed on an individual level and on an aggregate basis

Each of the seven actions has been mapped to the action spectrum that spans from promotion to continuing care. The purpose of this is to ensure that the identified actions span the total spectrum so that there is total coverage provided by the selected examples.

[38] Bond, F., Flaxman, P., Bunce, D., 2008 'The influence of psychological Flexibility on Work Redesign: Medicated Moderation of a Work Reorganisation Action', Journal of Applied Psychology, v. 93, no. 3

Program logic

Assumptions on the benefits and costs (direct and indirect) for each action were informed by the literature scan completed and workshops with the reference group. See our approach in Chapter 1 for more detail on our methodology.

Table 11: Program logic model and benefits framework combined for selected actions

Action	*Mental health condition targets:*			*Input/activities/outputs*	**Outcomes and impacts *(Quantified Benefits)***
	Anxiety	*Depression*	*Substance Use*		
Worksite physical activity program		✓	✓	• Direct cost of **$2,400, $4,800** or **$60,000** (small, medium or large organisation) for the fitness providers. • **No indirect cost** as action is assumed to take place after work.	Required improvement to mental health status to achieve a ROI through improvements to absenteeism, presenteeism and compensation claims
Coaching and mentoring, e.g. cognitive behavioural based leadership coaching		✓		• Direct cost of **$750, $2,500** or **$40,500** (small, medium or large organisation) for the 360 feedback tool, a half-day leadership workshop and 4 individual coaching sessions • Indirect costs of **8, 23** or **375 hours** (small, medium or large organisation) for the time needed by the executive for the coaching and workshop.	
Mental health first aid and education		✓		• Direct cost of **$600, $3,000** or **$46,000** (small, medium or large organisation) for the training provided to employees to be able to support others in the workplace. • Indirect costs of **72, 408** or **6,204 hours** (small, medium or large organisation) for the time used by employees to undertake the training.	
Resilience Training	✓	✓	✓	• Direct cost of **$2,400, $4,800** or **$4,800** (small, medium or large organisation) for the training for a couple of employees to be able to become instructors for the training. • Indirect costs of **50, 120** or **1,000 hours** (small, medium or large organisation) for the time taken to train employees and to provide resilience training more broadly in the firm.	
CBT based return-to-work programs	✓	✓	✓	• Direct cost of **$1,800, $1,800** or **$9,000** (small, medium or large organisation) for the training for occupational therapists to be able to better assist those returning to work from long leave of absence. • Indirect costs of **26, 28.50** or **190.50 hours** (small, medium or large organisation) for the time taken to train the occupational therapists and for the therapists and those returning to work to undertake the program.	
Well-being checks or health screening			✓	• Direct cost of **$2,400, $9,200** or **$150,000** (small, medium or large organisation) for an external provider to discuss new substance use policy with all employees, provide a supervisory training program and a helper program. • Indirect costs of **37, 158** or **2,500 hours** (small, medium or large organisation) for the time taken by employees to undertake the action.	
Encouraging employee involvement	✓	✓	✓	• Direct cost of **$1,800, $10,200** or **$155,000** (small, medium or large organisation) for the web-based psychological assessment survey to assess measures relating to job control, health, absence and acceptance. • Indirect cost of **3, 17** or **260 hours** (small, medium and large organisation) for the time taken to fill out the survey and collate the feedback.	

Costs of action

The actions are examples of the workplace strategies an organisation can deploy. The key investment assumptions relating to each action have been highlighted in Table 12.

Table 12: ***Investment assumptions for selected actions***

	Actions	Investment assumptions	
		Direct cost	***Indirect cost***
1	Worksite physical activity program	• Direct cost of **$2,400, $4,800** or **$60,000** (small, medium or large organisation) for the fitness providers • Costs of **$120** per fitness provider per hour for a group of **6 - 8** employees • Fitness sessions run for **20 weeks** with **1 hour** of training per week. • Approximately **50%** of the organisation signs up for the action (for small organisations this is assumed at **100%**)	• **No indirect cost** as the action is assumed to take place after work
2	Coaching and mentoring, e.g. cognitive behavioural based leadership coaching	• Direct cost of **$750, $2,500** or **$40,500** (small, medium or large organisation) for the 360 feedback tool, a half-day leadership workshop and 4 individual coaching sessions • Direct costs of the feedback tool are**$20 per employee per year** • Direct cost to engage an external service provider for one day is **$600 per executive employee per year** ($80 per employee per hour for 7.5 hours) • There are approximately **1, 3 or 50** executives assumed to be included in an average small, medium and large organisation respectively	• Indirect costs of **8, 23** or **375 hours** (small, medium or large organisation) for the time needed by the executive for the coaching and workshop • Wages for executives are scaled according to publically available data
3	Mental health first aid and education	• Direct cost of **$600, $3,000** or **$46,000** (small, medium or large organisation) for the training provided to employees to be able to support others in the workplace • Direct cost of **$230 per volunteer employee per year** (12 hours of training at $16.60 per person per hour in addition to a $30 fee for the training materials) • Training is provided to approximately **one third** of employees	• Indirect costs of **72, 408** or **6,204 hours** (small, medium or large organisation) for the time provided for employees to undertake the training • The training takes place during work hours, so there is an indirect cost for attending the course of **12 hours**
4	Resilience Training	• Direct cost of **$2,400, $4,800** or **$4,800** (small, medium or large organisation) for the training for a couple of employees to be able to become instructors for the training • Direct cost of **$2,400 per trained employee per year** ($80 per person per hour for 4 days of work) • Training is provided to **1,2 and 2** employees for small, medium and large organisations respectively	• Indirect costs of **50, 120** or **1,000 hours** (small, medium or large organisation) for the time taken to train employees and to provide resilience training more broadly in the firm • Indirect cost when two employees provide training for **5 half** days (approx. 10% of the workforce)

	Actions	Investment assumptions	
5	CBT based return-to-work programs	• Direct cost of **$1,800, $1,800** or **$9,000** (small, medium or large organisation) for the training of occupational therapists to be able to better assist those returning to work from long leave of absence • Direct cost of **$5,400 per session per year for 10% of employees** (training provided for 3 days at $80 per hour, 3 times during the year)	• Indirect costs of **26, 28.50** or **190.50 hours** (small, medium or large organisation) for the time taken to train the occupational therapists and for the therapists and those returning to work to undertake the program • Indirect cost for those who attend the training • Indirect cost of allowing staff members to receive counselling during work hours
6	Well-being checks or health screening	• Direct cost of **$2,400, $9,200** or **$150,000** (small, medium or large organisation) for an external provider to discuss new substance use policy with all employees, provide a supervisory training program and a helper program • Direct cost includes **three components per year** ($80 per person per hour): - 2.5 hour program to discuss policies (100% of employees) - 10 hour supervisory training program (20% of employees) - 7.5 hour peer helper program (5% of employees).	• Indirect costs of **37, 158** or **2,500 hours** (small, medium or large organisation) for the time taken by employees to undertake the action • Indirect cost includes three components per year: - 2.5 hour program to discuss policies (all employees) - 10 hour supervisory training program (20% of employees) - 7.5 hour peer helper program (5% of employees).
7	Encouraging employee involvement	• Direct cost of **$1,800, $10,200** or **$155,000** (small, medium or large organisation) for the web-based psychological assessment survey to assess measures relating to job control, health, absence and acceptance • Direct cost of the web-based psychological assessment at **$300 per employee** which includes: - **$30 fee per person run twice each year** - Cost of the service provider who runs the workshop was at **$80 per hour for 3 hours**	• Indirect cost of **3, 17** or **260 hours** (small, medium and large organisation) for the time taken to fill out the survey and receive feedback.

Mental health conditions impacted by action

Based on the literature review, we have assumed that the actions used in this analysis will have an impact on the workforce population. The tables below outline the impact of each of the selected action programs by the:

- type of mental health condition seen i.e. all, affective (including depression), anxiety and substance use;
- severity of the mental health condition i.e. none, mild, moderate and severe.

Table 13: Impact of worksite physical activity programs on mental health condition by severity

Severity	All Mental Health	Affective	Anxiety	Substance Use
None	Yes	Yes	Yes	Yes
Mild	No	Yes	Yes	No
Moderate	No	Yes	Yes	No
Severe	No	Yes	Yes	No

Table 14: Impact of coaching and mentoring on mental health condition by severity

Severity	All Mental Health	Affective	Anxiety	Substance Use
None	Yes	Yes	Yes	Yes
Mild	No	No	No	No
Moderate	No	No	No	No
Severe	No	No	No	No

Table 15: Impact of mental health first aid and education on mental health condition by severity

Severity	All Mental Health	Affective	Anxiety	Substance Use
None	Yes	Yes	Yes	Yes
Mild	No	Yes	No	No
Moderate	No	Yes	No	No
Severe	No	Yes	No	No

Table 16: Impact of resilience training on mental health condition by severity

Severity	All Mental Health	Affective	Anxiety	Substance Use
None	Yes	Yes	Yes	Yes
Mild	No	No	No	No
Moderate	No	No	No	No
Severe	No	No	No	No

Table 17: Impact of CBT based return-to-work programs on mental health condition by severity

Severity	All Mental Health	Affective	Anxiety	Substance Use
None	No	No	No	No
Moderate	Yes	Yes	Yes	Yes
Severe	Yes	Yes	Yes	Yes

Note: For the CBT based return-to work programs the action was not applied for mild severity of mental health conditions. The action was assumed to be less likely to be offered to a person diagnosed with a mild severity of condition.

Table 18: Impact of well-being checks or health screening on mental health condition by severity

Severity	All Mental Health	Affective	Anxiety	Substance Use
None	No	No	No	Yes
Mild	No	No	No	Yes
Moderate	No	No	No	Yes
Severe	No	No	No	Yes

Table 19: Impact of encouraging employee involvement on mental health condition by severity

Severity	All Mental Health	Affective	Anxiety	Substance Use
None	Yes	Yes	Yes	Yes
Mild	Yes	Yes	Yes	No
Moderate	Yes	Yes	Yes	No
Severe	Yes	Yes	Yes	No

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