



Wellbeing and productivity at work

NZIER report to Xero

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Key points

What we did

We reviewed the local and international literature and data sources to estimate the productivity benefits of improved wellbeing at work. We have defined productivity as output per hours worked. The scope of the benefits was limited to an at-work productivity measure in effective output using hourly wage rates adjusted for overheads, which is a standard approach. The estimation of intangible or social costs and non-work costs was out of scope.

We considered two approaches for improving mental wellbeing at work:

- employee assistance programmes (EAPs), which support individual with counselling
- organisational approaches, which develop organisational cultures and activities to improve mental wellbeing.

We estimated the return on investment (ROI) ratio for both approaches. The approaches are complementary. Both have a role to play in improving mental being at work. Organisational approaches tend to be more at the proactive end of the spectrum, while EAPs support people at their time of need. This report is about demonstrating the ROI, it is not about comparing approaches.

Employee assistance programmes: reactive initiatives for individuals in need

The central estimate for the ROI ratio for EAPs in the New Zealand context is 3.6:1 (2:1–5:1). An ROI ratio of 3:1 is good compared to market return on capital investment. This result is consistent with studies from the UK, USA and Australia.

The ratios are sensitive to two key factors:

- the severity of the productivity loss due to mental wellbeing challenges
- the extent of employee assistance needed.

Such variability is expected, as everyone experiences their own mental wellbeing journey and their own response to support. A systematic review (the gold standard of evidence evaluation) of EAPs shows that the ROI and effectiveness is positive in most cases.

Utilisation rates, rather than simply offering services is the challenge for EAPs. Utilisation is critical in achieving effective outcomes for more people. International estimates indicate that the utilisation rate is around 5–6 percent of employees.

The biggest drivers of stress include workload, changes at work, non-work relationships and relationships at work. Stress was one of the top 5 drivers for being absent from work.

The literature points to impaired productivity due to mental wellbeing, something that does not follow a regular pattern throughout the year. One study suggested the period of impairment to be around one quarter or 13 weeks. The irregular pattern fits with the nature of workload (and deadlines) being a driver of mental wellbeing challenges.

Organisational approaches: proactive organisational initiatives support mental wellbeing generally

The central estimate for the ROI ratio for organisational approaches in the New Zealand context is 5:1 (2:1–12:1).

Low-cost organisational approaches, such as Xero's Check In, potentially have a higher ROI due to the lower costs and the generalised effect on productivity throughout the year, not only in stressful periods. We have estimated the ROI is 8.5:1 (5.1:1–11.2:1). The variation depends on the severity of the productivity impairment and the time invested in check-in activities at work.

Organisational approaches tend to have a greater ROI because of economies of scale and their proactive nature. This reduces the costs and impacts for the more severe demand services like EAPs.

There are a wide range of options that can support staff mental wellbeing, including physical activity, coaching, resilience training, mental first aid, education about mental wellbeing, and engagement activities. Some approaches are better suited to large organisations, but most are accessible for small, medium and large organisations.

The direct annual cost per employee of these approaches ranges from \$30 to \$3,000. The indirect costs include staff time completing wellbeing activities.

But not all actions are about time away from work activities. Some changes, like maintaining a healthy diet and being active, are about forming the right habits throughout the day. Employers can encourage habit-forming through facilitating access to healthy food and facilities to support active commuting.

What can be done?

Other OECD governments collect official statistics on wellbeing, including presenteeism and absenteeism, whereas New Zealand currently does not. In New Zealand, information gathering on workplace mental wellbeing is left to the private sector.

There is a role for the private sector and the government. The private sector can do more by better understanding the drivers of mental wellbeing in their business, encouraging people to use the options available sooner and sharing their experiences. There is an important contribution required from government in facilitating economy-wide data collection on mental wellbeing and productivity. Investment in better statistics and enabling further research are important next steps on the journey to improving the wellbeing of people and their communities.



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1 Objectives and scope

1.1 Objectives

Xero commissioned NZIER to estimate the return on investment (ROI) from initiatives to support the mental health, wellbeing, and resilience of employees.

1.2 Research question

The research aims to answer the following research questions:

- How is mental health, wellbeing and resilience at work defined?
- What is the effect of mental wellbeing on productivity at work?
- What is the per-person economic cost of mental health challenges at work?
- What is the ROI from workplace wellbeing initiatives?

1.3 The scope of the research

The scope of the research includes the application of existing local and international literature and statistics. The development of new original statistics and primary research are out of scope.

Mental health and wellbeing are very broad topics. The scope of this project is limited to mental wellbeing and its implications for productivity at work and the productive economic costs. The direct and indirect costs for society, such as health system costs and intangible costs, are out of scope. The research will help set a foundation for the social costs of mental wellbeing at work to be investigated in future research.

1.4 Research approach

The research approach involved drawing on the international and local literature and data to provide the evidence for the methodology and analysis.

The research took an employee-level perspective. The ROI estimates were modelled at the per-employee level rather than the per-business level to avoid the confounding issues associated with variations in business size. While some overseas studies dealt with business size, most of the studies reviewed took an employee-level perspective.



2 How is mental health, wellbeing at work defined?

The research and the discourse around mental wellbeing at work uses a variety of jargon, including:

- mental health
- mental wellbeing
- work-related stress.

The World Health Organization (WHO) describes mental health in the following way:

Mental health is a state of well-being in which an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and is able to make a contribution to his or her community. Mental health is fundamental to our collective and individual ability as humans to think, emote, interact with each other, earn a living and enjoy life. On this basis, the promotion, protection and restoration of mental health can be regarded as a vital concern of individuals, communities and societies throughout the world. WHO (2018).

Mental wellbeing is similar to mental health. It is about psychological state and ability to function according to an individual's potential, but mental wellbeing takes an individual's perspective of their own state of wellbeing. This report used the terms mental wellbeing or impaired mental wellbeing for two reasons:

- It covers a broader perspective than a medical model of mental health.
- It avoids the potential for confusion with mental illness.

2.1 Some stress can improve productivity, too much is counter-productive

Mental wellbeing and mental health exist with the same spectrum of outcomes. A person with impaired mental health and mental wellbeing can be languishing. In contrast a perfect state of wellbeing is where they will flourish (Keyes 2002).

Figure 1 The mental health and wellbeing continuum



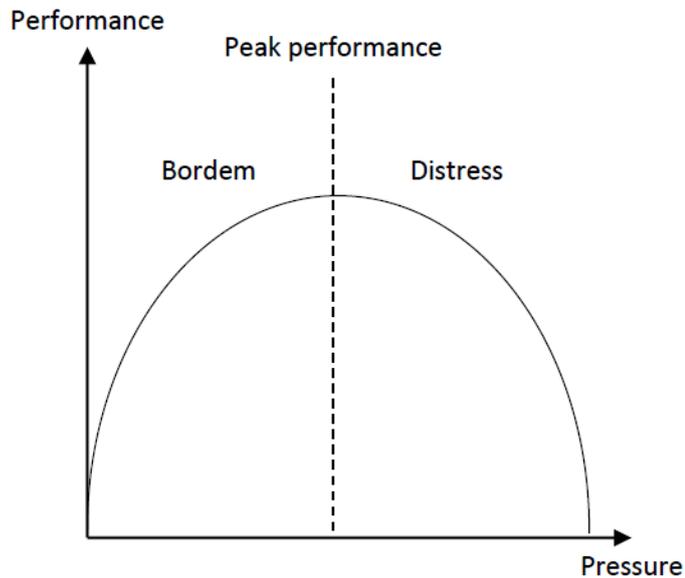
Source: Keyes (2002)

Impaired mental wellbeing refers to situations where stress levels at work exceed levels associated with 'growth opportunities' or learning curves. There is a relationship between stress and performance. Teigen (1994) showed that the absence of sufficient challenges at work can lead to boredom, disengagement, and sub-optimal performance. But there is also a level of challenge or stress where performance is impaired because the stress has become distress. Applying Teigen's framework of levels of stress, the productivity and wellbeing relationship is about balance. The key is to ensure the level of challenge for people does not



become excessive, which could lead to distress, impaired productivity, and poorer wellbeing outcomes. The relationship between pressure and performance is shown in Figure 2.

Figure 2 The relationship between pressure and performance



Source: Teigen (1994)

2.2 The drivers of impaired wellbeing and impaired productivity

The potential sources of work-related distress that could impair productivity and wellbeing include:

- excessive work hours
- excessive workload
- unclear expectations
- unrealistic deadlines
- managerial indecision
- job insecurity
- isolated working conditions
- surveillance of people at work
- social dynamics at work, including bullying, harassment, discrimination, and favouritism
- work-related non-work stressors (for example, childcare and commute-driven stress or fatigue (WHO 2010)).

Christian (2012) showed that traffic congestion and long commuting time can lead to decreased sleeping time and increased fatigue, less time for physical activity, and reduced opportunity for food preparation among commuters. The impact of a long commute was

associated with drivers of obesity and other poor health outcomes. The implication is that stress associated with work spills over to activities usually considered to be outside of work.

3 How does mental wellbeing affect productivity?

The literature was reviewed to investigate the effect of impaired mental wellbeing on productivity at work. The effects on productivity are most frequently split into two effects: presenteeism and absenteeism.

Presenteeism is when health, including mental health, affects or prevents an employee's ability to perform adequately while at work (Johnston 2019). Performance decreases as the severity of mental health increases. As mental wellbeing challenges increase in severity, absenteeism becomes more common.

Some studies included additional effects on work-related productivity. For example, Deloitte (2020) also included the effects from staff turnover. In a study on productivity loss due to excessive alcohol consumption, Sullivan et al. (2019) included the effect on co-workers and management of having to fill in for or manage impaired workers, in addition to presenteeism and absenteeism.

The effects of mental wellbeing challenges, and associated issues such as substance-induced impairment, are likely to have wider effects than presenteeism and absenteeism. The scope of this research is limited to those two direct effects. Therefore, the assessment of the productivity effects and the ROI from intervention are conservative estimates because they exclude indirect effects.

The indirect effects of presenteeism and absenteeism include:

- active management responses
- co-workers filling in for absent or unprepared staff
- staff turnover costs.

3.1 What is the effect of impaired mental wellbeing on productivity at work?

The direct economic burden of impaired mental wellbeing for businesses is due to lost productivity. Productivity loss is split between presenteeism and absenteeism, with presenteeism accounting for 80 percent of the productivity loss and absenteeism accounting for the remaining 20 percent (Hargrave et al. 2008).

This split between presenteeism and absenteeism implies the effects of impaired mental wellbeing on productivity at work occur before they are signalled to management or co-workers through sick leave. Sophisticated approaches to monitoring the mental wellbeing of staff is required in order to detect early warning signs.

There is currently a lack of research on the severity of mental wellbeing challenges, presenteeism and the effect on productivity in New Zealand. The most accessible source of information on trends in workplace wellbeing in New Zealand is the Workplace Wellness Reports published by Business New Zealand and Southern Cross (for example, Business New Zealand and Southern Cross 2019). As good as these reports are, more detail is needed to assess the ROI from workplace wellbeing investments and interventions. Therefore, the



evidence-base for the productivity effects in our report is based on peer-reviewed international literature published in academic journals.

3.2 How much of an effect?

Collins et al. (2005) used a 4-week survey to assess the prevalence and productivity effect of chronic conditions. They found that people reporting depression, anxiety, or emotional disorders had a 36.4 percent decrease in productivity at work.

Lerner et al. (2004) found that the effect of depression and mental health impairment was a decrease in productivity of between 6.6 percent and 10.1 percent, depending on the severity of the condition. Absenteeism was found to range between 1.4 and 1.7 days per year, depending on the severity of the condition.

In a pre/post evaluation of EAP services, Hargrave et al. (2008) found that the average loss in productivity due to mental wellbeing challenges was 9.22 hours per week. That is equivalent to 23.1 percent – more than a day’s work. Hargrave et al. (2008) also estimated that the number of absent days avoided due to using EAP services was on average 2.6 days per person over a year.

Table 1 shows the range of estimates for the effect of mental wellbeing challenges on productivity, in terms of presenteeism and absenteeism. The range of the effect of presenteeism on productivity is quite wide, reflecting variation in the severity of mental health challenges.

Table 1 Estimates of the productivity effects of impaired mental wellbeing

Effect	Low estimate	Medium estimate	High estimate
Productivity loss due to presenteeism	6.6%	23.1%	36.4%
Absenteeism (days) per year	1.4	2.0	2.6

Source: Various sources and NZIER

4 Estimating the ROI

We considered two broad categories of approaches to investing in the mental wellbeing of people in work:

- EAPs
- organisational initiatives.

EAPs can cover a mix of employer and employee support services. Typically, EAPs provide employers and employees with access to confidential counselling and trauma support services. They tend to be more reactive than proactive because they are typically utilised when people are experiencing material and sustained impaired mental wellbeing that warrants interventions such as counselling.

EAPs are utilised at the individual level, rather than collectively. Estimates of the productivity impairment experienced by those who utilise EAP services are in the middle to upper end of the range. For example, Spetch, Howland, and Lowman (2011) found that absenteeism was initially higher in people who used EAPs relative to those who did not use EAP services.

Organisational initiatives for staff wellbeing cover a wide range of activities that can be focused on general mental wellbeing and at the same time be about organisational culture and performance support. Options that can support staff mental wellbeing include:

- supporting physical activity
- access to healthy diet choices
- coaching
- resilience training
- mental first aid
- education about mental wellbeing
- engagement activities.

In comparison to EAPs, organisational approaches are much more proactive. The barriers to utilisation are generally lower because there is less stigma attached.

4.1 Estimating the ROI in EAPs

Estimating the ROI in EAPs involved:

- reviewing the international and local literature to determine these key aspects:
 - the productivity impairment among those using EAPs
 - duration of impaired wellbeing
 - effectiveness of EAPs
 - typical ROI results found in other studies as comparators to cross reference the estimate
 - methods of valuing lost productivity



- using New Zealand data on the value of wages, overheads and EAP services to estimate the ROI.

The ROI is calculated based on the following formula:

$$ROI = \frac{\text{net intervention benefit}}{\text{costs of the intervention}} \times 100$$

where the net intervention benefit is the value of the avoided productivity loss less the cost of the intervention. The cost of the intervention is the combination of the fixed and variable costs, where the fixed costs are annual subscription fees for access to the services and the variable costs are fees to specific or additional services such as counselling sessions.

The following key assumptions were made:

- The loss in productivity from presenteeism is equivalent to between 23 percent and 30 percent average output.
- The number of days lost to absenteeism due to impaired mental wellbeing ranges from 2 to 2.6 days over the period of impairment.
- The value of lost output is equivalent to a median wage of \$29.25 per hour plus a 100 percent margin on labour input.
- The duration of moderate to severe impairment associated with the use of EAP services is 13 weeks. Peak distress is typically short-term rather than sustained.
- The cost of EAP counselling sessions ranges from \$160 to \$200 per session.
- The number of EAP sessions per employee accessing EAP services varies from 3 to 8 sessions.
- The average fixed cost of access (based on a small business) to EAP services per employee is \$18.60. This cost is independent of the degree of utilisation.

Systematic reviews have shown that EAPs are effective in most cases (Joseph, Walker, and Fuller-Tyszkiewicz 2018; Schultz and Edington 2007; Spetch, Howland, and Lowman 2011). The question of how effective interventions are is important because it determines the extent that productivity losses due to mental health challenges can be avoided by intervening.

While Hargrave et al. (2008) found that the average loss in productivity was 9.22 hours per week, or 23.1 percent, they also found that utilisation of EAP services increased effective productivity at work by 6.36 hours per week. This implies that 100 percent avoidance may not be certain. This result was based on a pre/post evaluation of the productivity of 150 people. This represents about 15 percent of a 40-hour work week and the best part of a workday per week.

An effort was made to be conservative in the analysis, due to the critical importance of an evidence-driven approach when addressing societal issues. The variation in the input assumptions was unavoidable and reflects the variation found in most studies. There was a clear theme from many international studies that people have a wide variety of experiences with impaired mental wellbeing.



Correspondingly, the kind of support needed also varies from person to person. The extent of the variation in all aspects of mental wellbeing implies that a central estimate of the ROI can serve as a useful guide. But the individual experience of mental wellbeing should be at the forefront of shaping the choice and implementation of formal and informal interventions.

The central estimate for the ROI ratio for EAPs in the New Zealand context is 3.6:1 (2:1–5:1). This result is consistent with estimates for the UK, US and Australia (Deloitte 2020; Hargrave et al. 2008; PWC and Beyond Blue 2014). This implies that the provision of access to and encouragement to utilise EAP services represents a positive ROI from a business point of view.

A key challenge for EAPs is whether utilisation could be increased. Utilisation rates internationally are as low as 5–6 percent of employees (Hargrave et al. 2008). The key objective is to make sure people get the support they need. Not everyone will need counselling to improve their mental wellbeing and productivity. EAP services are specific to individuals.

4.2 Estimating the ROI for organisational approaches

In comparison to EAPs, organisational approaches tend to be much more about forming and maintaining habits, behaviours and collective cultures that strengthen mental wellbeing. Organisational approaches are proactive and preventative rather than reactive, and they are fundamentally about the combination of supporting performance and avoiding impaired mental wellbeing.

There are a wide range of options that can support staff mental wellbeing, including physical activity, coaching, resilience training, mental first aid, education about mental wellbeing, and engagement activities. Some approaches are better suited to large organisations, but most are accessible for organisations of all sizes.

The key features of organisational approaches include the following:

- They can have a more generalisable effect on mental wellbeing across the organisation due to a tendency for higher participation.
- The effects of organisational approaches are distributive through the year.

The estimation of the ROI from organisational approaches involved the following assumptions:

- The costs of organisational approaches vary significantly. The direct annual cost per employee ranges from \$30 to \$3,000, but several options cost between \$250 and \$350. The extreme ends of the cost range probably don't reflect the typical cost.
- The indirect costs include staff time completing wellbeing activities, but not all actions are about time away from work activities. Some changes, like maintaining a healthy diet and being active, are about forming the right habits throughout the day.
- The effect is more generalised throughout the year, rather than purely targeted on peak periods of distress like an EAP approach is.

The central estimate for the ROI ratio for organisational approaches in the New Zealand context is 5:1 (2:1–12:1).



Low-cost organisational approaches, such as Xero's Check In, potentially have a higher ROI due to the lower costs and the generalised effect on productivity throughout the year, not only in stressful periods. We have estimated the ROI is 8.5:1 (5.1:1–11.2:1). The variation depends on the severity of the productivity impairment and the time invested in check-in activities at work.

Organisational approaches tend to have a greater ROI because of economies of scale and their proactive nature. This reduces the costs and impacts for the more severe demand services like EAPs.

4.3 Higher productivity, better wages and improved wellbeing

The ROI of initiatives that improve the mental wellbeing of staff could spill over to have a positive contribution to their overall economic wellbeing. Labour productivity increases are empirically linked to increases in real wages in New Zealand (Meehan, Conway, and Parham 2015).

In the context of a discussion on the impact of mental wellbeing on productivity and outcomes, the link between increases in labour productivity and increases in real wages has important economic and social implications. Evidence shows that decreases in mental wellbeing can decrease, or even temporarily halt, labour productivity. This could then stymie, or delay wage increases and impact the economic wellbeing of people and households.

Supporting and managing the wellbeing of employees is beneficial for the productive output of the business they work for and critical to lift the real wages that drive economic wellbeing in New Zealand.



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