



MONASH
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**EARLY INTERVENTION IN THE
WORKERS' COMPENSATION
PROCESS**

Compiled by
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**GROUP
OF EIGHT
AUSTRALIA**



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Abbreviations

CBT	Cognitive Behavioural Therapy
RCT	Randomised Controlled Trial
RTW	Return to work
SIG	Strategic Issues Group
SME	Small and medium-sized enterprise
SR	Systematic Review
SWA	Safe Work Australia
MSK	Musculoskeletal
MI	Motivational interviewing
EI	Early intervention

1. Executive summary

As part of the delivery of the National Return to Work Strategy 2020-2030, Safe Work Australia (SWA) commissioned this independent research project under Action Area 4 (Supporting other Stakeholders) and, in particular, national priority for action 3 (Explore best practice early intervention and claims management models). The overarching aim of this project is to identify, evaluate and synthesise the evidence on early intervention in the workers' compensation process, and its effectiveness in reducing recovery times and improvement in return to work (RTW) outcomes for injured workers. To achieve this, the project included three main components:

1. expert consultation with twenty leading researchers and academics in the workers' compensation and RTW fields;
2. extensive engagement with stakeholders in Australia through three workshops attended by members of the SWA Strategic Issues Group (SIG) on Workers' Compensation and twelve interviews with 27 stakeholders;
3. An environmental scan of the international and national literature

Drawing on these components, the report provides a focused synthesis of the literature and a compilation of a contemporary snapshot of beliefs, experiences and practices involving early intervention in workers' compensation schemes in Australia. The project benefitted enormously from enthusiastic participation by a wide range of relevant stakeholders who gave generously of their time and experience.

Overall, there was universal consensus as to the value of early intervention after illness/injury to improve both recovery and work outcomes. It was clear, however, that, despite this consensus, there was no agreed definition of what "early intervention in workers' compensation schemes" actually was, either from the literature or in practice

in Australia. However, a number of different approaches and initiatives have already been successfully introduced in parts of Australia, and the levels of success of those strategies were reported to the researchers.

A consensus was more readily reached about what early intervention was not (not primary prevention and not any service accessed by the individual without the knowledge of an employer/insurer and not if a change of status of some kind was observed/measured in an individual who had been in the workers' compensation system for longer than three months). It was also agreed that an intervention could not be described as "early" if it took place any later than three months after lodgement of a claim. It was agreed that an "early intervention" required an assessment of some kind followed by an action, or response. Conceptually, early interventions could occur prior to any claim being made (by the individual, their healthcare provider or the employer (once notified)) but the researchers heard concerns expressed about the opportunities then open to employers to try to prevent a worker from exercising their right to make a claim. Given this, the focus of most of the research was on actions taken to intervene after lodgement of a claim.

Stakeholders offered tremendous insight into barriers to and facilitators of early intervention after claim lodgement, and some key areas were highlighted: employer knowledge and skills (particularly in small and medium-sized businesses); healthcare provider knowledge; access to essential healthcare services (particularly specialised ones); and communication between all relevant parties. Some contributors talked about the barriers created by some of the rules of individual schemes. Some enablers that were highlighted included: provisional liability and involvement of case managers to facilitate communication.

The literature review revealed that, although this is an area developing rapidly, there remain few high-quality randomised controlled trials (RCTs). However, there is evidence that some early intervention approaches are particularly helpful. These approaches include MI, cognitive behavioural therapy (CBT) - particularly when work focussed, early involvement of a case manager and coordinated multi-domain interventions (interventions that take account of all relevant personal, work and/or insurer factors).

In summary, this report highlights widespread agreement about the importance of early intervention amongst stakeholders in Australia and provides a great deal of insight into factors which enable early intervention and risks which need to be mitigated in order to facilitate early intervention.

The researchers make some recommendations going forward that:

- a) there is good evidence from the literature and from practice in Australia that coordinated multidomain interventions improve recovery and RTW outcomes and should be applied in the Australian context;
- b) objective evaluation is required by stakeholders of their early intervention initiatives;
- c) there is a need to facilitate more open collaboration, partnership and sharing in Australia regarding early intervention;
- d) some risks have been identified in the development of early intervention strategies in Australia, and more work is needed to understand and mitigate these risks;
- e) early intervention relies on effective communication and genuine consultation, and that more work is needed to optimise this in Australia;

- f) consideration is given to developing better strategies to support healthcare workers in their role in early intervention and successful RTW, and;
- g) best efforts continue to be made to ensure that workers are well-informed about their rights.

2. Introduction

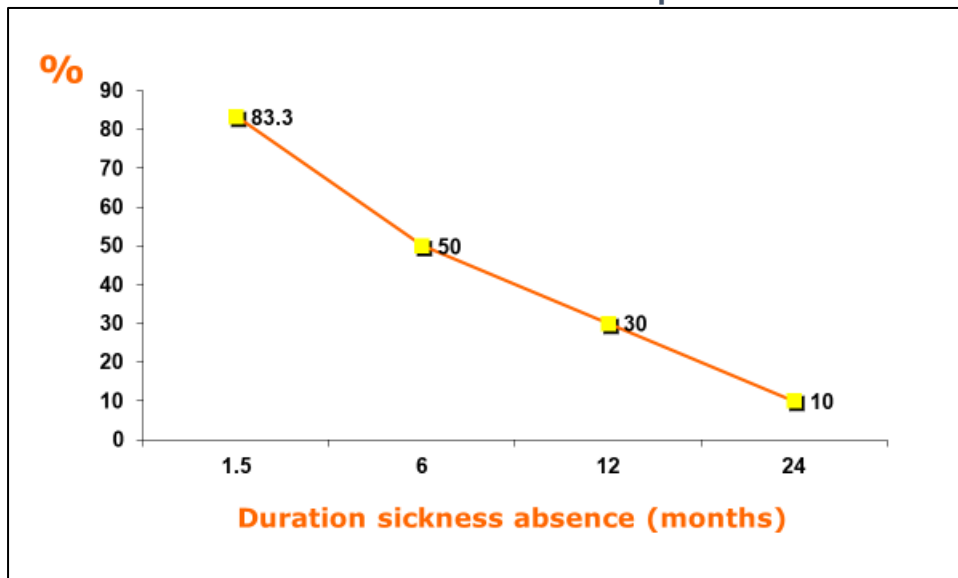
Work disability occurs when a health condition limits the ability of a worker to participate in employment. Work disability has significant consequences for the individual, their family, their employer and society, including:

- Individual health: worse mental health,¹ shorter life expectancy,² higher pain levels,³ more health and social care,⁴ greater risk of suicide,⁵ and reduced quality of life.⁶
- Employer impacts: Loss of productive working time arising from absenteeism⁷ and presenteeism,⁸ where ill health or injury affects the ability to work at full capacity.
- Family, social and economic impacts: Higher rates of marital separation;⁹ financial distress due to lost income ¹⁰ and early retirement due to ill health ¹¹
- Australian national economic impacts: \$37.2 billion expenditure on direct costs of work disability income support in 2015/16,¹² 2 million Full Time Equivalents (FTEs) lost productivity to work injury in the decade to 2018.¹³

In her 2018 report, Professor Dame Carol Black pointed to the importance of prevention of work disability by “turning off the tap” of people becoming newly disabled for work¹⁴. Given that most new cases of work disability arise because of common mental health conditions (anxiety and depression) and musculoskeletal disorders, there is huge capacity to reduce work disability by maximising effective early healthcare and minimising the duration of sickness absence. The evidence is overwhelming that, as durations of sickness absence increase, so does the likelihood of ever returning to any paid work diminish so that after 24 months of prolonged

worklessness, very few people will ever make a successful return to paid work (Figure 1).

Figure 1: Proportion of people who will return to paid work in relation to duration of sickness absence for low back pain



2.1. Early intervention

The term “early intervention” has become widely used to describe initiatives which are put in place as early as possible after symptoms of an illness or injury are experienced by the worker. Such initiatives can be taken by the worker themselves, a healthcare provider whom they consult, or a colleague, supervisor or HR or Occupational Health and Safety representative in the workplace. Where it is feasible and safe, ill-health should ideally be managed without long-term sickness absence. Where absence is deemed necessary, it should be closely monitored by the healthcare provider who has recommended the absence, and regular supportive contact should be maintained between the worker and their supervisor to facilitate a successful RTW. Flexibility, adjustments to the tasks and working hours, provision of suitable equipment or rotation or sharing of roles often support the RTW process.

There is widespread acceptance of the importance of, and need for, early intervention to reduce work disability. Where there is less evidence or consensus, is on how to best integrate the best principles and practices of early intervention alongside workers' compensation schemes.

In Australia, workers' compensation is a type of insurance cover that is available to offer workers an important safety net in the event that they are ill or injured as a consequence of their work. Legally, employers must have insurance to cover these costs. There are 11 main jurisdictions with distinct insurance schemes currently operating in Australia, and these are set up and run somewhat differently. However, the overarching principle is for them to provide support to the ill or injured worker, covering some of their lost wages and paying for medical and rehabilitation expenses incurred.

Given that Australian compensation systems are unique, evidence from other countries /systems may not translate easily to the Australian context. Therefore, this project was undertaken to identify early interventions that were effective at improving recovery and RTW outcomes among people in workers' compensation schemes with illness or injury. After illness or injury, there are a range of factors that can delay returning to work, which can be broadly considered as: individual-specific (also including healthcare-related); injury-specific; work-specific; and scheme-specific determinants.¹⁵ Within each of these domains, the factors can also be dynamic and change over time.

There is evidence that returning to work after a period of illness or injury can have benefits for both physical and psychological health. Moreover, work can act as an active mode of recovery after injury or illness, hence "phased RTW".¹⁶ With this in mind, Safe Work Australia has commissioned this project to explore the evidence on

early interventions to understand how early interventions can optimize recovery and RTW outcomes for individuals with work-related injuries or illnesses in the setting of workers' compensation schemes.

2.2. Objectives

2.2.1. Main objective

The overarching aim of this project is to identify, evaluate and synthesise the evidence on early intervention in the workers' compensation process, as well as its effectiveness in reducing recovery times, and how early interventions might improve RTW outcomes for injured workers.

2.2.2. Specific objectives

The project specific objectives are to:

- undertake a broad environmental scan of existing academic and grey literature;
- highlight the types of interventions available for specific injuries, risk factors or target cohorts;
- highlight the roles of different stakeholder groups in a successful intervention;
- provide an analysis of RTW outcomes and return on investment from implementing successful early intervention initiatives;
- provide an analysis of early intervention initiatives in the context of workers' compensation legislative schemes;
- make recommendations for further research and analysis, specifically in areas identified as having key knowledge gaps; and
- consider potential recommendations for best practice early intervention models (if research provides evidence).

Eight specific research questions were also agreed with our partners, as follows:

- (1) What are conceptual definitions of early intervention in a workers' compensation context?
- (2) What are practical definitions of early intervention in a workers' compensation context?
- (3) What definitions of early intervention have been adopted and utilised in practice by stakeholders?
- (4) What is the role of different stakeholders in successful early intervention models, including claims management organisations, employers and healthcare providers?
- (5) What barriers do stakeholders perceive to early intervention? What enablers are there for early intervention?
- (6) What experiences do stakeholders have of early intervention pilots or trials, as well as ongoing early intervention practices within their jurisdictions?
- (7) What changes were implemented within workers' compensation systems as a result of these trials?
- (8) What evidence is available in the academic and grey literature on the effectiveness of early intervention in the workers' compensation process in reducing recovery times and improving RTW outcomes for injured workers, and can these available sources provide meaningful evidence that might be applied to the Australian context?

In the next section, the Methods used to develop this report will be described in detail.

3. Methods

To meet the objectives and answer the research questions, we undertook research informed by stakeholders, as shown in Figure 2.

Figure 2. Flow diagram of methodology

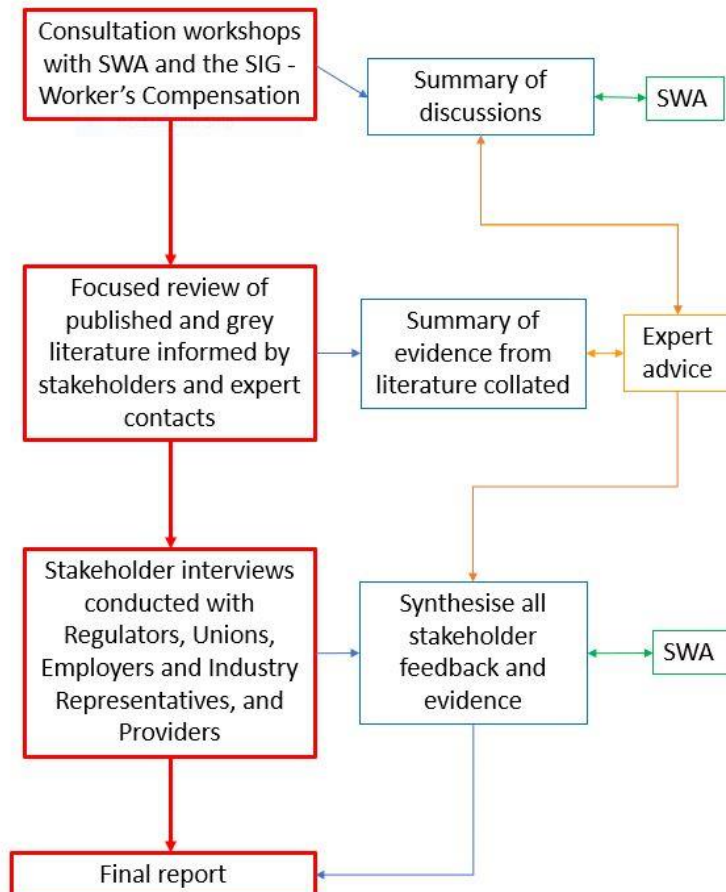


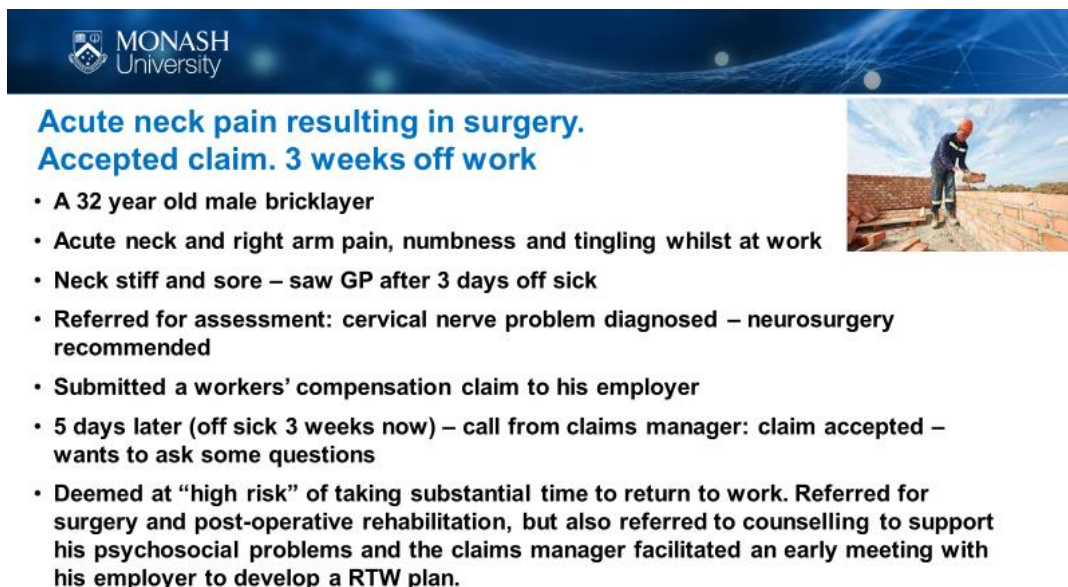
Figure 2 summarises the iterative approach taken for this research, which was designed to integrate feedback from the SIG-Workers' Compensation, individual stakeholder meetings with information gathered from experts in the field, and a focused review of the literature. The methods for each of these individual components are described in detail below.

3.1. Stakeholder workshops

An initial online workshop was held on 21/6/2023 with individuals recruited by Safe Work Australia through the recommendations of members of the Safe Work Australia SIG-Workers' Compensation. The aims of the workshop were to introduce the 'Early Intervention in Workers' Compensation Schemes Project', and, in particular, to consider participant views as to a consensus definition of what currently constituted "early intervention" in workers' compensation schemes in Australia.

To achieve this, some vignettes were developed for discussion:

Figure 3. First vignette for Stakeholder workshop 1




Acute neck pain resulting in surgery. Accepted claim. 3 weeks off work

- A 32 year old male bricklayer
- Acute neck and right arm pain, numbness and tingling whilst at work
- Neck stiff and sore – saw GP after 3 days off sick
- Referred for assessment: cervical nerve problem diagnosed – neurosurgery recommended
- Submitted a workers' compensation claim to his employer
- 5 days later (off sick 3 weeks now) – call from claims manager: claim accepted – wants to ask some questions
- Deemed at "high risk" of taking substantial time to return to work. Referred for surgery and post-operative rehabilitation, but also referred to counselling to support his psychosocial problems and the claims manager facilitated an early meeting with his employer to develop a RTW plan.


The first vignette (Figure 3) described a young fit bricklayer with an acute injury at work, leading to rapid assessment by a GP (after 3 days) referral for neurosurgery and an accepted workers' compensation claim. The insurer contacted the client five days after acceptance of the claim to undertake a screening of yellow and blue flags for delayed RTW. Having identified both types of flags were present, additional interventions were put in place.

The second vignette described a young administrator who, faced with a new IT system, struggled with sleeping and accessed the Employee Assistance Programme, which was able to support her with counselling and enabled her to feel better and not need to go off sick (Figure 4).

Figure 4. Second vignette for Stakeholder workshop 1


 **Work-related stress with sleep problems. Still working but at risk of time off. Accesses workplace Employee Assistance Program. Has not submitted a claim.**

- Sam, 24 year old administrator
- New IT system, increased workload, decreased social contact
- Trouble winding down, trouble sleeping
- Accesses workplace EAP for three hours of counselling




The third vignette (Figure 5) described a nurse off sick for 24 months contacted by his claim manager who, having identified incident depression, referred the client for counselling.

Figure 5. Third vignette for Stakeholder workshop 1

 **Chronic occupational disease. Accepted claim. Continuing symptoms. Not returned to work after 2 years.**

- Ahmad, a 45 year old nurse has not worked for more than 12 months after a year of patchy working
- He has a successful workers' compensation claim for contact dermatitis
- After 24 months his case manager calls him to check on his progress
- His GP has recently diagnosed him with depression
- Claims manager arranges referral for counselling for his mental health



Prior to the workshop, the following questions were circulated to facilitate discussion with colleagues beforehand:

- How do you define an early intervention in a workers' compensation context?
- What definition of early intervention have you adopted?
- What is the overall value of early interventions in a workers' compensation context?
- What barriers do stakeholders perceive to early intervention? What mechanisms exist to enable early intervention?
- What experiences do stakeholders have of early intervention within their jurisdiction, including pilots, trials or ongoing practices?
- Were there any lessons learned from your experiences?

Two additional consultation sessions were held with members of SIG-Workers' Compensation (August and November 2023). At each, we were allocated 15 minutes to present our findings and to elicit their feedback. SIG-Workers' Compensation members were encouraged to contact the research team after each of these meetings if they wished to provide more detailed feedback for incorporation into the final report.

3.2. Expert consultation

Twenty experts in workers' compensation, RTW, and the link between work and health were contacted from a range of universities (Australian and international), as well as independent consultants and members of research organisations such as the Canadian Institute for Work and Health.

Experts had knowledge across the following specialty areas:

- Worker interventions
- Vocational rehabilitation and clinical health

- Rehabilitation science
- Injured worker assessment, medico-legal expertise
- Labour and health economics
- Work disability policy
- Workers' compensation evaluation and effectiveness
- Workplace wellbeing
- Psychological injury in the workplace
- Pain management
- Disability prevention strategies
- Occupational health and safety
- Epidemiology of work-related injury/illness
- Determinants of work disability
- Vocational rehabilitation policy and research.

Each of these experts was contacted by email regarding the topic of this project. They were invited to inform the research team of any research (published or unpublished) relevant to the topic and for their professional views of this topic. They were asked to provide relevant background about Australian and international policy, and they were asked to send any relevant published/or unpublished materials/references. (See Appendix 1). The information and papers received assisted with defining the parameters of the literature review and contributed to its key findings. The information received from these experts also informed questions for the stakeholder interviews.

3.3. Stakeholder interviews

Interviewees for this phase of the project were identified from a range of sources. At the first stakeholder workshop, all participants were invited to nominate themselves or

others in their organisation /area of specialism who they thought could talk about early intervention in workers' compensation schemes. Additionally, we contacted key groups, including insurers, State and Commonwealth Workers' Compensation Authorities, private insurers, regulators, employer Industry groups, Unions, healthcare providers and vocational rehabilitation providers to ask for participants. A "snowball" sampling technique was also employed so that participants nominated others who they thought we should talk to. Additionally, colleagues at Safe Work Australia provided names and contact details based on their knowledge and experience. Twelve separate interviews were conducted, which involved 27 stakeholders from the organisations listed in Figure 6.

Figure 6. Groups of participants identified as stakeholders who agreed to be interviewed



Specific areas of enquiry for the stakeholder interviews were developed through (a) consultation with experts, (b) the environmental scan of the literature and (c) through our partners in Safe Work Australia. The key concept areas were incorporated into a

set of meaningful prompts to be used by the interviewers in order to interrogate all relevant areas of enquiry (See Appendix 2).

To facilitate their involvement, interviews were carried out online at a date/time that was convenient. Interviews were conducted by two, or sometimes three, researchers. Interviews were conducted with between one and four different stakeholder participants. All but one of the interviews were recorded and transcribed verbatim, with the verbal permission of the interviewees. For one interview, extensive notes were taken by two interviewers, with the verbal permission of the interviewees. These notes were compared and summarised according to the research questions after the interview.

In response to the call for participation, we also received one written submission. The interviews and written submission material were thematically analysed, starting with data familiarisation, development of themes, and review within the research team. Themes were collated using an Excel spreadsheet, with specific quotes drawn from the interviews and the written submission. Consensus on the themes, analysis and interpretation was achieved through a process of discussion by members of the research team. At the end of each interview, stakeholders were asked to send us any reports or publications regarding early intervention in schemes or jurisdictions of which they had knowledge.

3.4. Review of evidence from the literature

Existing academic and grey literature were reviewed to gather relevant information on early intervention in workers' compensation settings. The searches and synthesis took place between July 2023 and October 2023. Initially, an environmental scan of the (academic and grey) literature was performed, and preliminary findings from this

phase were extracted and synthesized. Then, these findings were reviewed by the project team. Through this process the team identified and reviewed more than 100 documents, including government web pages, government reports, brochures, media statements, legislation and external policy documents.

3.4.1. Evidence synthesis and grading

First, we created a list of categories of interventions based on accepted definitions of work disability interventions in the literature and expert knowledge within the research team. Second, interventions considered in the review were sorted into the predefined categories according to key intervention characteristics. Third, we determined the direction of the effect of early interventions on RTW outcomes based on our summary of the findings and the overall size of the effect within each of the intervention categories. We used the following rules adapted from Cullen et al.:¹⁷

- An intervention category with positive and no negative results on RTW outcomes was classified as a positive effect.
- An intervention category with both positive and no effect findings on RTW outcomes was classified as a positive effect.
- An intervention category with only no effects on RTW outcomes was classified as no effect.
- An intervention category with both positive and negative effects was classified as a mixed effect.
- An intervention category with over two-thirds of the studies yielded positive results was classified as a positive effect.
- An intervention category with all negative results was classified as a negative effect.

- Finally, we determined the strength of the evidence to support findings for each intervention category. We adapted the best evidence synthesis approach from Cullen et al.¹⁷ that considers consistency, quantity and evidence hierarchy (see Table 1).

Table 1. Levels of evidence determination for the evidence synthesis

Level of evidence	Evidence hierarchy *	Minimum quantity	Consistency	Strength of message
***Strong	High (H)	3	3H agree, if 3+ studies, $\frac{3}{4}$ of the M and H agree	Recommendations
**Moderate	Moderate (M)	2H or 2M and 1H	2H agree or 2M and 1H agree If 3+ studies, then $\geq 2/3$ of the M and H agree	Practice considerations
*Limited		1H or 2M or 1M and 1 H	2(M and or/H) agree If 2+studies, $>1/2$ of the M and H agree	Not enough evidence to make recommendations or practice considerations
Mixed		2	Findings are contradictory	
? Insufficient			Medium or low-quality studies that do not meet the above criteria	Inconclusive research evidence at present

*** Evidence hierarchy:**

- 1) **Highest level of evidence:** This category included systematic reviews, meta-analyses and randomised control trials
- 2) **Moderate (Second level of evidence):** This category included quasi-experiments, cohort studies and case-controlled studies
- 3) **Lowest level of evidence:** This category included evidence from pre-post studies, reports, survey results and pilot trials.

Appendix 3 summarises the strength of the evidence from the range of peer-reviewed literature included in our scan of the evidence. Appendix 4 provides a summary of the grey literature scanned.

4. Findings and results

As stated in the introduction, there is considerable evidence to support the importance of early intervention to prevent work disability with benefits for the worker, employer and society at large. See Appendices 3 and 4 for a comprehensive summary of the evidence on the impact of early intervention. The principles of early intervention should apply to all workers, whether or not the illness or injury that has affected the worker is work-related. This section should be read bearing in mind that, outside of workers' compensation systems, there is already good evidence that early intervention improves RTW outcomes. However, within the context of this project, the focus of our enquiry was to establish what types of early intervention were currently being applied in Australian workers' compensation schemes and, from the evidence scan, which elements of early intervention have the best evidence to support their use in the context of such schemes.

Each of the methods employed within this project (see Section 3 for full details) enabled us to develop a much greater understanding of early intervention as it is currently being applied in Australian workers' compensation schemes.

Any reports or publications that were provided by the stakeholders at the request of the research team have been listed in Appendix 1.

The report findings are summarised under the following themes:

1. Defining early intervention in a workers' compensation context
2. The role of different stakeholders in implementing early intervention models
3. Barriers and mechanisms to enable successful early intervention programs
4. Stakeholders experience implementing early intervention models
5. A research and evidence summary of early intervention approaches

4.1. Defining early intervention in a workers' compensation context

This section addresses the following three research questions:

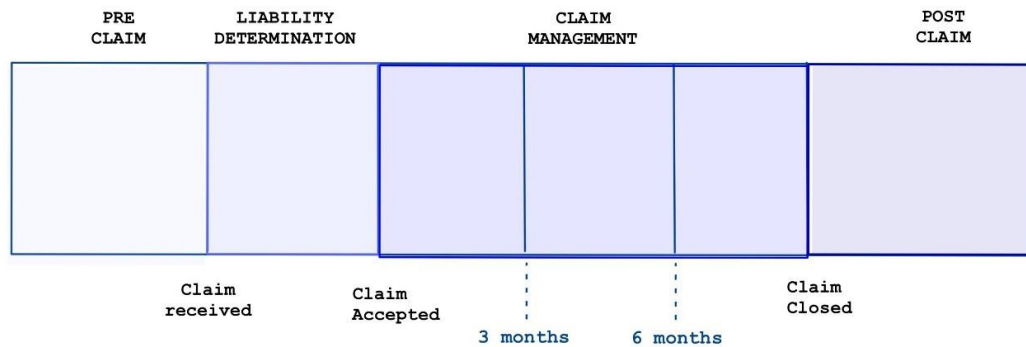
1. What are conceptual definitions of early intervention in a workers' compensation context?
2. What are practical definitions of early intervention in a workers' compensation context?
3. What definitions of early intervention have been adopted and utilised in practice by stakeholders?

4.1.1. Conceptual framing of early intervention: Stakeholder perspectives

Much of the insight that we gained about conceptual definitions of early intervention came from the first workshop. The vignettes that were deliberately designed to consider interventions prior to claim, early after claim and, before acceptance and after acceptance of a claim but at different durations (3 months, 6 months, 12 and 24 months) prompted rich discussion. Figure 7 outlines the key phases at which there are opportunities to intervene to support injured or ill workers. This includes:

- Prior to a workers' compensation claim submission: for example, opportunities for employer and union-led initiatives, support and advice
- During the period of liability determination: for example, provisional liability support and initiatives
- Post-claim acceptance: for example, interventions may be tailored to support workers at different points, such as within 3 months, 6 months or longer periods until the claim is closed.
- After the claim is closed: for example, ongoing support during RTW.

Figure 7. Phase-based description of the life of a claim



Adapted from Iles et al.¹⁵

Figure 7 summarises the phases in a lifetime of a claim at which opportunities arise for different stakeholders to intervene. Not all stakeholders have the same opportunity in the phases; e.g. insurers can only intervene early after a claim has actually been lodged. On the other hand, employers can intervene (potentially) as soon as a worker reports symptoms. Whilst everyone agreed early intervention was desirable and best practice, it was the view of some stakeholders that employer-led interventions could be a cause for concern if they were applied in order to pressurise or deter a worker from exercising their right to make a claim. Some parties felt that early intervention should be led by the employer before and after lodgement of a claim. Others viewed “in workers’ compensation schemes” as the critical part of the definition and did not view early intervention as anything that could be initiated unless and until a claim had been lodged.

There was, however, agreement that there are opportunities for intervention prior to claim lodgement and, given the evidence, that these can be highly successful.

Stakeholder discussion and feedback established the key features of early intervention as:

- To intervene requires the worker to notify a third party (employer, healthcare provider, insurer) of their injury/disease
- To enable intervention, there needs to be some assessment of the worker, which can be formal or informal.
- To define something as an “intervention”, there needs to be some response to the assessment performed, which may include things such as funding services and supports, workplace accommodations, medical treatment or some combination of these or other things.

Stakeholders’ explanations of their own experiences with early intervention highlighted critical trigger points for intervention, including:

- A third party becoming aware of the workers’ injury/disease (e.g. workplace incident notification)
- Lodgement of a compensation claim with certain features (e.g. a psychological injury claim, certain psychosocial features of a claimant)
- Time based triggers (e.g. a certain period of sickness absence or payment of workers’ compensation benefits)
- Service use triggers (e.g. use of high-risk medicines or high rates of service use).
- Responses to a screening questionnaire

4.1.2. A working definition of early intervention

From the above discussion and feedback with stakeholders, a ‘working definition’ was conceptualised *for the purpose of this project*:

“one or more actions taken in response to an assessment of an injured or ill worker that begin as soon as possible after a triggering event or interaction, but no later than three months after the lodgement of a workers’ compensation claim, and that aim to improve RTW outcomes”.

Thus, the **key features** are:

Assessment: An intervention leads on from a specific event or interaction, (e.g. symptoms, responses to a screening questionnaire, failure to RTW after a pre-defined period).

Action(s): As a result of the assessment, one or more of a range of specific actions (e.g. referral to a healthcare provider) take place.

Timing: Intervention begins as soon as possible after the onset of injury/disease and no later than three months after the lodgement of a workers’ compensation claim.

Trigger event: Early intervention in the workers’ compensation process is time-bound to events in both the **disease/injury process** (i.e. symptom onset, actions of the worker in response to the symptoms, actions of the employer once made aware of the symptoms, actions of any involved healthcare provider) and **the compensation process** (once a claim is lodged, the clock can commence within the workers’ compensation system and actions taken within this process e.g. screening for yellow or blue flags, requiring employer contact with the worker).

Claims processes: The timing of interventions by workers' compensation insurers will vary according to jurisdictional policy (e.g., waiting periods to access compensation schemes) and work practices (e.g., the time taken to lodge and process claims).

4.1.3. What early intervention is not:

- It is not a method of circumventing the workers' compensation process, nor does it preclude a workers' compensation claim being made
- It is not primary prevention.
- It is not services accessed by a worker without the knowledge of an employer or insurer (for example EAP programs, though we acknowledge that these may be helpful in some cases)
- It is not initiated more than three months after workers' compensation claim lodgement.
- It is not an action taken in response to a change of status which is observed/measured > 3 months after initiation of a workers' compensation claim

4.1.4. Practical considerations in defining early intervention

From the stakeholders, it became evident that views about what constitutes early intervention have changed over time and may continue to do so. As different authorities initiate changes to their policies or systems, this can create more opportunity for early intervention (or inhibit them from doing so). Authorities readily engage with evidence about best practice and change their views based on good evidence, particularly from their own jurisdictional experiences.

Insight about practical definitions of early intervention came from both the first stakeholder workshop and the interviews. In practical terms, the discussion centred

on whether or not the defining event for “early intervention in workers’ compensation schemes” was lodgement of a claim. Some stakeholders (e.g. insurers) highlighted that they cannot undertake an intervention unless and until a claim has been lodged. For them, early intervention can only be after a claim. On the other hand, other stakeholders have greater opportunities earlier, e.g. immediately after symptom or injury onset.

As all the evidence suggests, interventions early after the onset of symptoms are desirable. However, in the circumstance that the illness or injury may be work-related and that there is, therefore, entitlement by the worker to make a workers’ compensation claim, there is the risk that actions that should be taken that are in the best interests of the worker might also be seen as a mechanism by which to bully or harass workers or even ease them out of the workforce. Given that employers are required to pay the insurance premiums that protect their workers, they can be effectively incentivised to actively discourage workers from making claims that might be legitimate and could be accepted. Some anecdotal examples of this were cited by workshop attendees, and it was held as a fundamental principle of the workers’ compensation system that workers should be facilitated by employers to make a claim in any situation in which the worker believes that their work had caused them injury or disease.

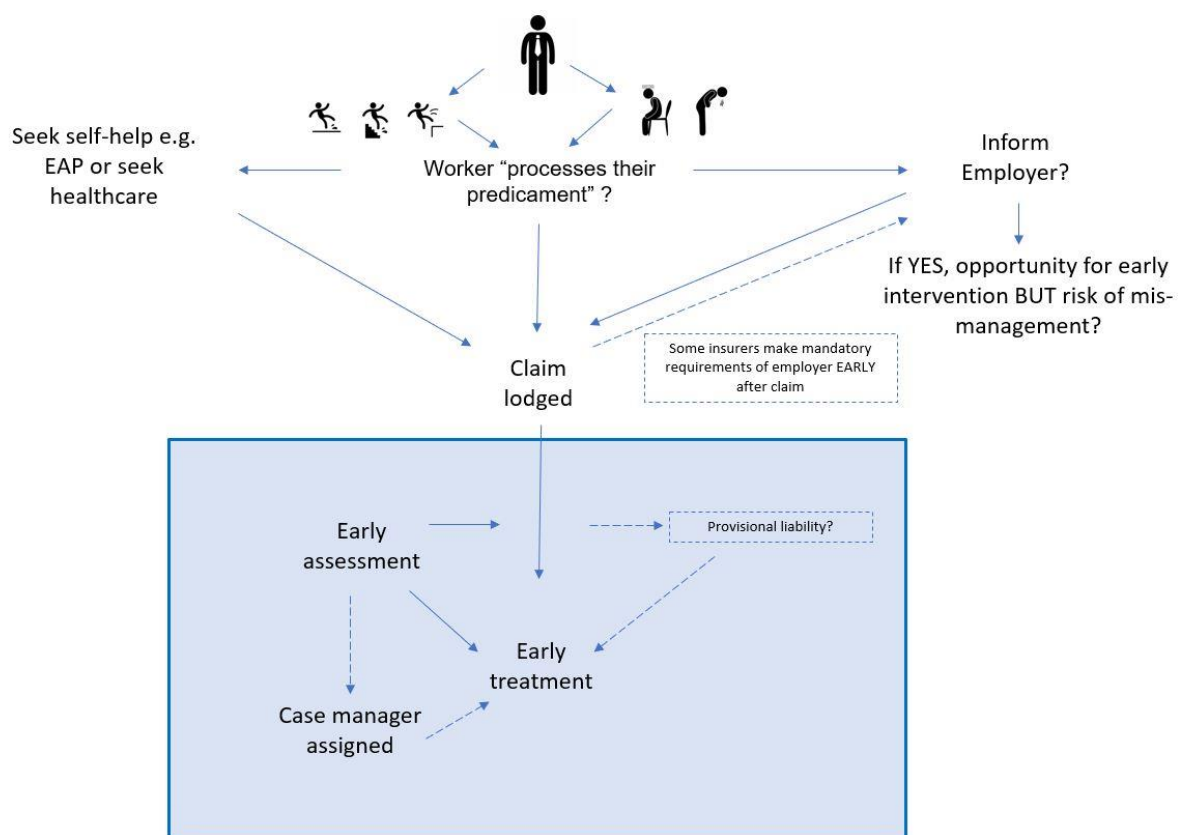
4.2. The role of different stakeholders in implementing early intervention models

This section discusses the role of early intervention for different stakeholders. It addresses the following research question:

4. What is the role of different stakeholders in successful early intervention models, including claims management organisations, employers and healthcare providers?

The stakeholder interviews gave insight into the range of approaches and roles of stakeholders being taken in practice across Australia. There was understandable heterogeneity across stakeholders, explained by differences in legal frameworks and the visibility of an injury/illness to a particular body. For example, regulatory and state insurance authorities cannot take any action unless and until a workers' compensation claim has been made (Figure 8).

Figure 8. Schematic diagram describing opportunities for early intervention prior to and after workers' compensation claim



—————> Actions that might follow each stage
 - - - - -> Actions that some jurisdictions already have in place
 The blue box represents actions occurring AFTER claim lodgement

As shown in Figure 8, the earliest opportunities occur when a worker first has an injury or develops symptoms and makes their own decision about who to tell and/or what

help to seek “processes their predicament”¹⁸. (Term coined by Nortin Hadler¹⁸ for the moment when an individual with a health condition decides how significant their symptoms are and what actions, if any, to take about their symptoms e.g. take sick leave; consult a healthcare professional, make a claim etc). As discussed previously, the evidence supports early intervention right from this stage, but opportunities for intervention from anyone but the worker are only applicable once the worker has disclosed their symptoms to their healthcare provider and/or their employer. In cases of some occupational diseases, the employees themselves will not always connect their symptoms with their work, and the responsibility to recognise the link may lie with the healthcare professional whom they consult. Unions can also play a key role here in recognising the link between disease/illness and occupational exposure. Another key role for unions, and obligation for employers, is ensuring that workers have accurate information and knowledge about how to apply for workers’ compensation at the onset of injury or illness. Regulators of the 11 different workers’ compensation schemes also play a critical role in providing information and support to workers about their rights and to employers about their responsibilities under workers’ compensation legislation.

Regulators A and C, who often deal with large self-insured organisations, noted that because self-insurers often have earlier visibility of injury/illness, they have more opportunity to intervene earlier.

However, this does lead to some complexity in funding pre-claim interventions:

Self-insured employer L said: *We will receive a request for early intervention, e.g. physio for someone who has been off work or incurred medical or imaging costs or something like that. We might say to them, just let me just check that you do understand what your options are in relation to recouping those costs or having that*

leave covered because we can't cover that under our early intervention budget. Sometimes people will say, "Ohh I didn't know, I'd rather submit a claim".

There was recognition that intervention pre-claim initiation should be motivated by wanting an injured or ill employee to access support as early as possible.

From Industry Representative B: *If we take away all of our concerns about the employer trying to manipulate the system, et cetera., true early intervention is when you see somebody is limping and you say to them, Are you OK? Now, that's way before you've had any indication that they have got a work-related injury, and it may not be work related, but if we're not having supervisors and managers actually showing that level of care, whether it's a work-related injury or not. If we use the workers' compensation claim as a trigger, then in some ways, it actually has the risk of creating a lack of credibility. So you weren't interested in doing anything until I put in a workers' compensation claim? Whereas what we should be doing is holistically combining our care for people.*

Industry Representative B goes on to say: *I'd be really concerned about anything that's putting artificial barriers that stopped employers doing good things because of a suspicion that they're doing it for the wrong reason. And so I think that we need to be really careful about that, particularly when we're defining what is early intervention. And whether it's in the workers' comp system or outside of the workers' comp system, we really should be saying that if it's good for the worker, then we should be doing it.*

As in the first workshop, there was acknowledgement that intervention by an employer before a claim is submitted might mean that an employer avoided some premium costs. Whilst this offers opportunities for misuse of the system by employers, it was also recognised that if early interventions had good outcomes for the worker, an

appropriate early intervention might lead to a successful outcome for the worker and alleviate the need for a workers' compensation claim.

However, some risks from intervention at this stage were also heard. Firstly, it was stated that early intervention programs occurring outside the workers' compensation system could be used to erode workers' access to fair and just compensation for a workplace-related injury or illness. Anecdotal examples were provided of instances in which employers delayed access to support and discouraged workers from accessing workers' compensation. It was also emphasised that employers might not have the expertise to accurately judge the most appropriate level of support for a worker, leading to a potential for the worker not to receive the healthcare to which they would have been entitled if the decisions had been taken by an independent insurer. There was also felt to be a risk of loss of confidentiality for the worker if they were treated by a healthcare provider paid for by the employer.

From Union submission J: So workers can have access to services like free physiotherapy. But free of the confidentiality of the various workers' compensation regimes, there can be pressure applied to reveal elements of a workers' medical history and present state, that should remain confidential.

The researchers were told of an employer-led scheme for early intervention pre-claim in which cases were apparently only escalated to compensation claims if "serious" but it was alleged that the determination of which cases should be escalated was being made by the employer who was, of course, not independent, nor necessarily appropriately qualified. The researchers acknowledge they are not in a position to verify the information independently.

Another risk that was discussed was that all workers (including more vulnerable ones such as younger and migrant workers) should be fully aware of their rights, including understanding that it is their right to make a claim. As in Figure 8, the worker cannot properly process their predicament if they are not aware of all options available to them.

Another risk discussed was that interventions offered by employers to support workers' pre-claim initiation could be less visible in the system, although it is possible that insurers may have visibility through employer management systems.

From Regulator C: *We don't know about an injury or claim until we receive it. We talk about early intervention from the date of (claim) receipt.*

4.3. Barriers and enablers to enable early intervention

This section addresses the following research questions:

4. What barriers do stakeholders perceive to early intervention? What enablers are there for early intervention?

Stakeholders discussed their perceived barriers to early intervention. A number of key concerns were heard by the researchers, as shown in Table 2.

Table 2: Summary of stakeholder views on barriers and mechanisms for early intervention

Barriers to early intervention
Impossible to initiate early intervention for some stakeholders unless and until a claim is lodged
Limited knowledge and resources about what actions to take, especially in Small and Medium-sized enterprises (SME)
Healthcare professionals not understanding the importance of early RTW for health outcomes and/or failing to communicate the healthcare needs of the worker to the employer

Poor communication and consultation between stakeholders, including healthcare professionals.
Limited availability of healthcare professionals for occupational health and RTW best practice
Workers' compensation scheme design and policies
That stigma and fear of job loss associated with making a workers' compensation claim may delay the claim and hinder early intervention opportunities
Enablers for early intervention
Person-centred approach
Employers willing to create flexible work practices, work re-design, task rotation etc, to facilitate graded RTW
Early and regular communication with the sick/injured worker which can be facilitated by mandatory requirement of insurer
Healthcare professionals with skills in work rehabilitation available without long waiting lists
Case managers
Provisional liability
Clear, readily available guidance for workers about their rights in the event of an illness/injury

4.3.1. Employer insights

It was perceived that some employers lacked knowledge and had limited access to information about workers' compensation systems and evidence-based practice and that this prevented appropriate early intervention. This was highlighted particularly as a risk in small and medium-sized enterprises (SMEs).

Regulator D stated: *A small business is a risk factor.*

This was also supported by Regulator E, who recognised that: *Employees in small/medium-sized workplaces are often already job detached by the time the insurer is even aware they are off work.*

There was a consensus amongst stakeholders that resources that were targeted to SMEs were required. Vocational Rehabilitation Provider F stated, *The larger the organisation, the more resources they've got and the clearer policies and procedures. OHS is better managed, etc. That's one thing that small to medium organisations could really do better with.*

Industry Representative G discussed how they had created: *a suite of resources building off that work around tools to help SME managers know how to engage with those early conversations. So as soon as there's an injury, it's almost like a scripted.... "OK, this is what you talk about. Here's how you explain the work comp process..."*

4.3.2 Access to services

A major barrier raised by stakeholders was that of limited access/availability of relevant health services, including, in particular, psychology and, in some jurisdictions, physiotherapy and pre-claim injury management advice services. This was exacerbated currently by long waiting lists for appointments.

Regulator D described problems accessing psychology services as a difficulty ... *particularly in the psychologist space, needing access but not being able to see someone for 4 to 6 weeks.*

Difficulty in accessing appropriate health care, leading to prolonged periods out of work, was also discussed by Regulator C: *We all have those situations where workers are not receiving the appropriate physical treatment - they're not seeing a physio when it's clear they should be, or we're seeing in the mental injury space, workers are waiting 4-8 weeks to see a psychologist. If you don't get in front of a treatment early enough in relation to restrictions, and suitable duties and try to influence capacity, then a*

treater will continue to certify somebody unfit. First, it gets two weeks, then next it's four weeks, then six weeks, then four months.

4.3.2.1 Communication and consultation

Communication and genuine consultation (two-way) were recognised as a challenge by stakeholders at all stages of the early intervention process. These included: employers and health professionals, employers and workers, regulatory authorities and health professionals. As Industry Representative G described: *Many of our members have experienced a lack of coordination between case managers, insurers, employers, and health practitioners, leading to advice that was not always holistic.*

Often, this lack of communication and consultation was between an employer and an injured worker. Regulator D recognised: *Employers are typically not great at staying in touch with their injured workers.*

4.3.2.2. Healthcare professionals

Another area that was noted was communication and consultation with medical practitioners. Regulator E made the point that: *Doctors are often reluctant to talk to insurers about their patients, creating a barrier to effective intervention.*

Communication and consultation between medical practitioners and employers were also flagged as a barrier to early intervention. From Regulator D: *There's no system where employers could communicate with the doctor. "Oh, you know, [maybe not their] normal role. But we've got other duties that might be suitable. Can you let us know?"*

The role of medical practitioners in early intervention in workers' compensation and RTW was recognised as particularly challenging. Regulator E stated, *Doctors are not*

as likely to engage in return to work as a vital part of the recovery – they focus on the medical/health aspects of their injury.

Regulator A goes on to say: ... *I think we have a hard time sometimes communicating with them (doctors). But they're also the gatekeepers to compensation in the scheme like we need them to certify people fit for work or to have a capacity for work and to work with employers.*

Delays and issues with medical practitioners were also mentioned by Regulator D: *If you come across a provider who is not willing to certify someone fit for light duties or will only sign off someone to return to work when they're 100 percent or doesn't refer to evidence based best practice treatments. That's obviously going to impact that person's recovery and prospects of returning to work long term.*

4.3.2.3 Workers' compensation schemes restriction and design

Some barriers to early intervention in the workers' compensation system were recognised as being caused by restrictions of the workers' compensation scheme and design. Regulator A made the point: *It's difficult for XXXX to influence that process to be speeded up, as we're bound by the legislation and our functions.*

The time associated with claims going through the workers' compensation system was even worse for complex claims. As Regulator D stated: *Those claims do often have a longer determination process. There's a lot more information to process and get through. So some people are often just waiting and not getting any sort of treatment.*

This complexity of the workers' compensation system was exacerbated for stakeholders who needed to work across jurisdictions. Industry Representative G spoke about the issue of: ... *lack of consistency across states. E.g. XXXX state does not implement the same evidence based practice.*

4.3.2.4 Stigma

Many stakeholders discussed stigma associated with making a workers' compensation claim and how this might be a cause of delay to early intervention. From Regulator D: *There's probably stigma elements and perhaps fear of job loss. Their employer not being happy with them. With mental health in particular, people not being willing to seek help.*

Stakeholders also discussed the perception of workers that accessing workers' compensation creates financial pressure on employers and places burden on work colleagues. This was recognised as a potential disincentive for the lodgement of a workers' compensation claim and also a barrier to returning to work. From Insurance Agent K: *Getting a person back to work as soon as possible and in that social environment so that their co-workers see them contributing is important in terms of eliminating the stigma of workers' compensation. In a team environment, the challenge is that the other eight people that the individual works with have had to carry that person's work whilst they're not there. This needs some management as well. Communicating that they were on leave, they were sick, they were not well, but they're back now, and here are the things they can do, and before long, they're going to get back to full duties.* Misinformation and stigma were also apparent among employers. An example was provided by Regulator D about employers being unwilling to take a worker back after a workplace injury: *Employer attitudes as well. Some employers and in some particular industries I think don't want them back. I can't give them suitable duties. They've got to be 100 percent fully fit even though employers are required to assist in the rehabilitation of injured workers.*

4.3.2.5 Worker-centred approach

Several enablers of early intervention and improvements that might be made to facilitate early intervention were discussed. Stakeholders recognised particular qualities of successful early intervention initiatives. The importance of a person-centred approach was identified by Vocational Rehabilitation Provider F: *Early intervention is more than just focusing on the actual injury. [...] You need to think about everything else going on in that you know holistically to be able to make an impact with that person and it should be very client centric and very targeted.*

The need to tailor early intervention to an individual was also recognised by Regulator D: *It's very much about gathering information as early as we can to understand what's happening for that person, what their individual circumstances are. That includes what psychosocial risk factors might be present for those people and then tailoring the level of care and intervention according to that level of risk.*

As part of this tailoring of early intervention approaches, stakeholders discussed a range of screening tools and rationales for identifying the best way in which to provide support for injured or ill workers. These included widely recognised tools such as the Orebro Musculoskeletal Pain Questionnaire. However, other “in-house” risk assessment tools to target specific early intervention activities for injured workers were described. These tools generally focused on the biopsychosocial elements that influence recovery and RTW. For example, self-insured employer L said that their screening systems included a *holistic approach to working out what's happening for [the worker]. Are there financial stresses? Have they got stuff going on at home? How is their relationship? With their work colleagues? That sort of stuff. [...] With anyone that's referred to us, we'll have a conversation. That's part of our triage process.*

4.4. Stakeholder's experience implementing early intervention models

This section addresses the following research questions:

5. What experiences do stakeholders have of early intervention pilots or trials, as well as ongoing early intervention practices within their jurisdictions?
6. What changes were implemented within workers' compensation systems as a result of these trials?

Stakeholders recognised that evidence-based approaches needed to be implemented for successful early intervention. From Regulator A: *XXX – they use the Orebro screening tool for their programme, so anybody, regardless of whether it's physical or psychological, is screened and then they're given the choice to opt in to their programme.*

However, it was acknowledged that acceptance of the implementation of evidence-based approaches might take some time. From Regulator E: *The evidence-based message that returning to work is also vital to improving health will require a cultural shift and won't be resolved by a single workshop.*

4.4.1. Support for healthcare professionals

As discussed above, improvement of communication and consultation with medical practitioners was identified as an important feature of successful early intervention. From Regulator D: *We're investigating how can we extend our reach for doctors as well, who are seeing a huge volume of patients day out. So it's certainly something in our remit to do is to provide further education.*

It was also recognised by Industry Representative G that doctors might require extra training and access to evidence-based information: *Assumption is that GPs drive RTW*

- yet there is no training for GPs to support this. They're googling how to do it in the session.

4.4.2. Communication and consultation

The importance of effective communication and genuine consultation with the injured worker was identified by Regulator C: *The importance of the quality of the communication, the conversation. So get to know the worker, understand the challenges, understand the biopsychosocial factors, understand all that. So then you can go, what does this worker need? Ask the worker as well. "What do you need? To help you with your recovery"*.

Stakeholders discussed a range of current initiatives for early intervention in the workers' compensation system. These interventions included support for workers in the time between lodging a workers' compensation claim and claim determination.

From Regulator A: *.... also looks at (early intervention) as when we get notified from a claims manager that it hits our desk, ... it might take 20 days to determine that claim. If it's psychological injury, maybe longer. What can we be doing with the employer to help that person before they get entitlements through the Act?*

From Regulator D: *Early intervention is probably a pretty fuzzy term. It's hard to say when it definitively starts. It probably just depends who you're talking to and there being some sort of notification element to it. We sort of use the term 'early intervention', at least in a policy space, to refer to that early support that's provided to claimants with a mental injury in the claim determination period.*

Regulator C spoke about the complex range of activities that are involved with early intervention, post-claim initiation:

Today we talked about how quickly we're making contact, how quickly we're actually developing return to work plans, how quickly we're speaking to treaters, how quickly we're enabling a worker access to treatment. All those things are the things that we then refer to as early intervention.

The role of **provisional liability** in facilitating early intervention was discussed:

The researchers heard that there was a view that provisional liability, which allowed insurers to pay for support while waiting for claim determination, was viewed as positive for the worker as it did not reduce their rights to workers' compensation. Union submission J: *The payment of some psychological support services has been a good legislated early intervention initiative and has been valuable in helping workers get some support regardless of the outcome. Allowing injured workers access to pre-approved medical treatment is preferable to early intervention. The extension of provisional liability for all types of injuries would be a good start to eliminate the need for early intervention.*

Regulator C recognised the value of provisional liability for providing early intervention for injured or ill workers: *So provisional payments are part of making sure people can get early intervention support from a treatment perspective, which we know is important around recovery and early treatment.*

However, Regulator D made the point that provisional liability was not available for all workers prior to claim determination: *We have some provisions in our legislation that do provide for people with psychological injury to access support prior to determination, but that's for a set of people with a specific set of injuries.*

4.4.3. Employers

The role of employers in successful early intervention was emphasised by stakeholders. In particular, as previously discussed, it was recognised that employers in small or medium-sized enterprises were often lacking the information needed to enable and support effective early intervention.

4.4.4. Case managers

Excellent case managers were recognised to be facilitators of successful early intervention. Their principal role was to enable communication and consultation between healthcare professionals, employers and workers to ensure that the expectations of all were managed and realised. One jurisdiction offering mobile case managers emphasised the benefits of early case management on-site to build relevant relationships and expectations right from the outset of the process. Regulator H spoke about the mobile claims manager programme: *The mobile claims model was very much based on the evidence that showed that when you meet with the injured worker, ideally in the workplace, as the first place of meeting with them, then they are the most influential person. The number one issue is when does the worker think they are going to go back to work. Then do they have the support of their direct manager. So what they recognised is that the role of a mobile case manager to come out to assess that and be able to influence face-to-face.*

4.4.5. Changes implemented within workers' compensation systems as a result of these trials

Regulator H discussed how their processes were changed as a result of their experiences in the workers' compensation system. From Regulator H: *Our role is to oversee the agents and set some expectations around what that contact and*

communication looks like. First of all, they need to have appropriately trained, educated, and experienced staff completing that conversation and strategies. In terms of when you're calling them up, it will say press 1. If you have a psychological injury or press 2 if you have a physical one. Then you press 2. Press 1 If it's a back injury, press 2 if it's a shoulder injury that navigates them through. From our perspective, we set the claims management framework and the KPIs and then give (the insurance agents) flexibility. And they're becoming more and more innovative and more responsive to the early intervention space because it absolutely drives that performance and that customer experience.

There was some discussion of previous research, and how current practice had changed because of this previous research. Regulator D reported: *A lot of our approach to claims management is built on work we did with Monash called the Recovery blueprint. A best practice statement was published, around identifying people who are at risk of poor outcomes. That statement helps us target how we intervene and, for who we intervene, and when. Our system gathers the data and information that we know about that particular individual in their circumstances, and it tries to identify the risk factors that are linked to delayed recovery and return to work, like social factors, things like obviously injury, severity. But age, remote location, the type of industry, the way they're employed, socioeconomic elements that feed into it from where they live.... Then, there's a triage algorithm that happens automatically in our system. But there is the ability for our people to identify things that the triage hasn't identified and override that. So we call it a plus judgment based approach.*

4.5. A research and evidence summary of early intervention approaches.

This section considers evidence from academic and grey literature on the effectiveness of early intervention in the workers' compensation process in reducing recovery times and improving RTW outcomes for injured workers. It discusses whether these available sources provide meaningful evidence that might be applied to the Australian context.

This section addresses the following research question:

7. What evidence is available in the academic and grey literature on the effectiveness of early intervention in the workers' compensation process in reducing recovery times and improving RTW outcomes for injured workers, and can these available sources provide meaningful evidence that might be applied to the Australian context?

4.5.1. Characteristics of the academic and grey literature

A total of 27 academic and 15 grey literature sources were identified for inclusion in this report. The studies were conducted in Australia, Canada, the United States, New Zealand, Norway, Denmark, and Japan. The sources identified included: systematic reviews; scoping reviews; RCTs; pilot RCTs; prospective cohort studies; and controlled, non-randomized prospective designs.

The characteristics of the 27 included peer-reviewed publications are summarised in Appendix 3. They were published between 2017 and 2023. Appendix 4 summarises the characteristics of the 15 documents identified from the grey literature. These comprised reports, policy documents, blog posts, guidelines, and other non-peer-reviewed resources. Among this literature, only one, Comcare's Early Intervention Service Pilot report, was based on a pilot early intervention trial. The remaining

resources identified from the grey literature included recommendations about possible interventions to facilitate recovery or RTW after work-related injuries.

4.5.2. Populations

The populations in which interventions were carried out were heterogeneous, including for example: workers with musculoskeletal (MSK) disorders; and/or workers with psychological or mental health conditions; and/or patients receiving disability benefits.

4.5.3. Types of intervention

The papers encompassed a variety of different types of interventions which acted upon a range of factors, either individually or in combination. Interventions were also delivered by a range of different actors, ranging from clinicians to case workers, psychologists to supervisors in workplaces. Given the heterogeneity, and based on the Work Disability model proposed in compensation settings,¹⁹ it was decided to summarise the effectiveness of interventions under the following domains: personal; healthcare services or delivery; insurance and compensation; workplace; or multi-domain interventions. Overall, the most common domains in which interventions took place were in the workplace or in healthcare services/delivery.

4.5.4. Outcomes

The studies reported on a range of different RTW outcomes including: ever RTW; number of sick leave days; work absence duration; lost time; work disability; and work participation. The identified interventions from the included studies predominantly revolve around: improving recovery; reducing time until RTW; improving work functioning; and facilitating the RTW of employees.^{17,20–22}

4.5.5. Personal domain

4.5.5.1. Motivational Interviewing (MI):

As shown in Appendix 3, we found four RCTs and one pilot RCT of MI (four high-quality and one moderate-quality), which together provided a moderate level of evidence for a positive benefit from MI in enhancing RTW (see summary in Table 3). Benefit was most evident during occupational rehabilitation and when used by case managers working with people with musculoskeletal disorders.^{20,23} No benefit was seen in one Norwegian RCT that included workers with any diagnosis where MI was compared with usual case management by social insurance care workers.²² A Belgian pilot RCT found encouraging benefits from using brief MI in a single conversation about behaviour change.²⁴ The studies evaluated variable outcomes including: sustainable RTW; reducing sickness absence; and improving RTW rates amongst people with work-related MSK conditions and psychological injuries. Taken together, and although heterogeneous, these studies provide good evidence that MI as an early intervention can improve work outcomes, particularly amongst people off sick aiming to RTW.

4.5.5.2. Personalised interventions

One Australian insurer (Comcare) provided a nurse-led telephone triage service for immediate access by injured workers.²⁵ Amongst other actions, the nurse provided support to the workers for self-management. As this was a multi-component intervention, it is difficult to tease out the benefit of this part of the intervention. However, when it formed part of a complex intervention, there was reported benefit, although this has not yet been published in the peer-reviewed literature.

4.5.5.3. Applying behavioural insights

One report from the grey literature detailed the provision of targeted and personalised behavioural interventions, with the aim of enhancing effective communication and setting goals with injured workers in one government department.²⁶ Contact was encouraged on days 5 and 10 after onset of sickness/injury by supervisors, and they were supported to create a “recovery at work plan” for their worker. The aim was to simplify communication, focus messages on RTW, empower the injured worker, focus on the person instead of the process, engage with the healthcare professionals involved and develop the evidence base. Although the research has not, as yet, been published in the peer-reviewed literature, the report suggested that such an early intervention was feasible and could be effective, but more research is required.

4.5.6. Workplace interventions

A range of different workplace interventions were identified:

4.5.6.1. RTW coordinators

Three studies explored the evidence about RTW coordinators in early intervention. A study in Singapore provided trained RTW coordinators for workers with traumatic work-related musculoskeletal disorders, burns or joint pains and found that these were effective in facilitating early and safe RTW and that the intervention promoted increased self-perceived health and work ability.²⁷ A systematic review also found that face-to-face contact with RTW coordinators amongst sick/injured workers reduced work absence and increased RTW.²⁸ Also, a prospective cohort study in Australia showed that amongst workers with upper limb musculoskeletal conditions or mental health conditions with at least 10 days of workers’ compensation wage replacement payments, workplace-based RTW coordinators effectively improved RTW outcomes.²⁹

Thus, there is good evidence to suggest benefit from RTW coordinators in different settings. There is convincing evidence that having a third party who supports with healthcare, employment and communication between parties is of benefit for RTW. Importantly, the variability in organisational structures, industry demands, and workplace cultures can influence the outcomes of RTW coordination efforts.

4.5.6.2. Graded RTW

Two studies explored the role of graded RTW, both amongst people with mental health conditions. A systematic review found that graded RTW enhanced work participation,²¹ and an observational study found that graded RTW alongside a multimodal rehabilitation strategy was effective at improving work participation.³⁰ Altogether, graded RTW appears beneficial as part of early intervention, with evidence among people with mental health conditions.

4.5.6.3. Early contact and support of workers from the workplace

We found good and consistent evidence from the peer-reviewed literature of the value of early contact from the workplace and the provision of workplace support for workers who are injured/sick. The evidence for workplace support for mental health conditions came from a systematic review²¹ and for work-related musculoskeletal disorders from a pre-post-intervention study.³¹ There is also evidence that social support cultivated by supervisors and co-workers is an effective organisational strategy to support injured/ill workers on RTW.^{32,33} Unsurprisingly, many of the grey literature reports and policies prioritise these approaches. There is growing recognition of the importance of proactive workplace interventions in facilitating timely and successful RTW. Findings published in the academic and grey literature, as detailed in Appendix 4, highlight the potential benefits of employers fostering an environment that prioritises early

communication and support. Early contact from employers contributes to improved health outcomes for workers but also increases organisational efforts in promoting a healthy and productive workforce.³⁴

4.5.6.4. Work modifications and accommodations

As part of multi-domain early interventions, there is evidence that work modifications and accommodations introduced to enhance RTW are effective in reducing sickness absence time associated with musculoskeletal, pain-related, and mental health conditions. A systematic review of workplace interventions for RTW found strong evidence supporting work modifications and accommodations.¹⁷ This finding is reinforced by another systematic review on multi-domain interventions.³⁵ Two other studies that examined workplace modifications as part of an early intervention also had promising results.^{27,31}

4.5.6.5. Other workplace interventions

There is some promising evidence from the grey literature for other types of workplace interventions to reduce costs and disabilities while promoting employee well-being. These include effective workplace communication interventions,^{26,27,36} workplace rehabilitation providers, service coordination, screening and risk assessment,^{37,38} and employee assistance programs.^{34,39}

4.5.7. Healthcare domain

4.5.7.1. Cognitive Behavioural Therapy (CBT):

In the published literature, two RCTs, two systematic reviews and a pilot study were identified for CBT used in early intervention. One systematic review included workers on sick leave or leave due to a workplace incident and showed that CBT-based

interventions reduced duration of sick leave and facilitated RTW.⁴⁰ The other systematic review included workers with musculoskeletal conditions, pain and/or mental health conditions and showed that work-focused CBT reduced time off work and costs associated with work disability.¹⁷ The Swedish RCTs included people off sick with common mental disorders or stress-related disorders.^{41,42} The intervention was administered by psychologists. In a 3-arm study, they found that CBT alone, a RTW intervention, and both in combination, all reduced sickness absence with no benefit of any one approach over any other. However, CBT led to greater reduction of symptoms compared with the RTW initiative.⁴²

A Danish RCT including workers with work-related stress found that work-focused CBT administered by a psychologist led to faster sustained RTW compared to the control.⁴³ A Japanese pilot study showed promise for work-focused CBT as an early intervention for workers on sick leave with depression.⁴⁴ One grey literature report explored the role of a CBT approach amongst injured workers in the USA, classified as “high risk” or “very high risk” for delayed recovery by a triage tool.⁴⁵ The authors reported that, after CBT, the majority of injured workers were able to make a successful RTW, but these findings have not been published in a peer-reviewed journal.

Taken together, there is moderate evidence that early intervention with CBT may improve RTW outcomes. The strongest evidence for CBT was when it was work-focused and used as part of a comprehensive rehabilitation program tailored to the individual worker’s needs. Importantly, the effectiveness of work-focused CBT in improving RTW outcomes may vary from person to person and depends on factors such as the individual's specific condition, their willingness to engage in therapy, the skills of the therapist, and the support system in place.

4.5.7.2. Vocational rehabilitation services

There were no standalone studies investigating the effectiveness of vocational rehabilitation services. However, in three studies, vocational rehabilitation services were integrated with other interventions. For example, Ascellus et al.⁴⁵ found that CBT was moderately effective when delivered by vocational rehabilitation services. Two studies about multi-domain interventions to improve RTW outcomes included vocational rehabilitation service delivery. An international study of workers with musculoskeletal pain and mental health conditions found that accessing vocational rehabilitation services was ineffective. However, there was strong evidence that vocational rehabilitation services enhanced a graded RTW intervention and contact with the workplace.¹⁷ Another Canadian observational study examined the effectiveness of an integrated RTW program delivered by vocational rehabilitation services.⁴⁶ This study found integrated RTW programs delivered by vocational rehabilitation services reduced cumulative disability days paid for claims.

These three studies yield a moderate level of evidence supporting the integration of vocational rehabilitation services with a range of workplace interventions. This finding underscores the potential for healthcare providers to improve work outcomes.

4.5.7.3. Interventions to promote work-focused care

A scoping review of the literature on work-focused care found evidence that multidisciplinary interventions provided by healthcare teams can improve outcomes amongst people with musculoskeletal conditions.³⁶ Components that were effective included: work-related assessment to identify barriers to working; vocational advice /coaching or education to address barriers to working; involvement of the workplace;

restoration of fitness to work and regular communication with the multidisciplinary team.

4.5.7.4. Nurse triage services

An Australian pilot RCT by Comcare gave injured workers access to a nurse triage service immediately after the injury²⁵. Trained nurses provided immediate support and rapid access to relevant services, including physical or psychological treatment, support to self-manage, first aid and follow-up by the employer. In total, almost 350 workers used this service. An independent evaluation was conducted by Deloitte and reported benefits from this approach when “supported by a robust data collection framework”. Unfortunately, this research has not yet been published in the peer-reviewed literature, but it provides some evidence of benefit from this telephone triage approach.

4.5.7.5. Timely appointments with workplace rehabilitation providers

One grey literature report explored the role of vocational rehabilitation services in early intervention.⁴⁸ The injured worker was offered timely workplace rehabilitation by a dedicated provider within the first 8-13 weeks of the injury for workers with complex claims. The report detailed improvement in work outcomes from this service, but unfortunately again, this research has not been peer-reviewed.

4.5.7.6. Problem-solving therapy and work-focused psychological interventions

One study from the grey literature evaluated the implementation of a service to improve RTW for people with mental health conditions.⁴⁷ The intervention had multiple modalities, including problem-solving; work-directed interventions; CBT; exercise

interventions and medications to reduce time to RTW amongst people with depression. This approach would appear promising but, unfortunately, this research is not yet published in the peer-reviewed literature.

4.5.8. Insurance and compensation domain

The following insurance and compensation domain interventions have been evaluated:

4.5.8.1. Manager mental health training

One Australian RCT evaluated providing a 4-hour module on mental health training for managers and reported a reduction in work-related sickness absence.⁴⁹ There may be promise from this approach, but this is an area that requires additional research.

4.5.8.2. Workplace health promotion and health management programs

One observational study based in Australia involved the development of a program that adopted a biopsychosocial approach to health promotion and injury prevention and found evidence that this reduced sickness absence and premium costs⁵⁰. Whilst there is limited evidence so far, there are some drivers for employers to adopt a “healthy work” approach which promotes health and wellbeing to its staff whilst protecting their health at work. Initiatives that adopt such an approach are increasingly being evaluated, including the Total Worker Health© programs in the US.⁵¹⁻⁵⁴ These types of approaches are likely to facilitate early intervention.

4.5.8.3. Supervisor training

One parallel-group RCT investigated the role of brief audio-visual training to improve supervisors’ knowledge and attitudes toward injured workers. They reported that there was a trend towards supervisors reporting that they felt better able to manage RTW

for injured workers.⁵⁵ There is currently limited evidence for the benefit of such an approach, and further research is required to strengthen the evidence base.

4.5.8.4 Early claim management by insurers

Early claim management by insurers (managing the first four weeks of significant injury claims) has been reported in the grey literature as effective in improving recovery and RTW within the initial four weeks of significant injury claims. There were no peer-reviewed studies on this topic.⁵⁶

4.5.8.5 Pre-claim discussions and early claim lodgement

A grey literature report emphasised the effectiveness of pre-claim discussions, pre-claim assistance from the employer, and early claim lodgement.³⁴ This study found that when the employer provided this assistance, RTW rates increased to 74% for workers with psychological conditions and to 84% for workers with physical conditions. The report detailed an increased chance of RTW after early claim lodgement with both types of claims. It will be excellent to see if these data can be replicated in the peer-reviewed literature.

4.5.8.6 Multi-domain interventions

Multi-domain interventions include components in at least two of the following domains: health-focused interventions, service coordination interventions and/or work-modification interventions. We found strong evidence from peer-reviewed research that coordinated multi-domain interventions are effective in improving recovery and RTW outcomes. Four different systematic reviews suggest strong evidence that these types of interventions not only address workers' healthcare needs but also facilitate understanding, expectation and cooperation between workers, healthcare

practitioners and employers.^{17,21,35,57} These interventions can be recommended as they improve RTW. Multi-domain interventions are reported in the grey literature⁵⁸ and are being implemented in practice.⁵⁹

4.5.9. Summary of findings from the literature

As stated above, there is growing evidence to support the importance of early intervention to prevent longer-term work disability with benefits for the worker, employer and society at large. In reviewing the literature, a particular challenge was that there was no universally standardised or widely accepted definition for "early intervention" in the context of workers' compensation systems. This is likely due to the complexity of the recovery and RTW process and the many factors that interact to influence a worker's recovery and RTW.²⁹ However, it was clear that there was some consensus that the principles underpinning the concept of "early intervention" in workers' compensation settings require timely, workplace-integrated, and tailored approaches to enhance recovery and RTW outcomes following work-related injury/illness. Table 3 summarises the level of evidence for each of the interventions discussed.

Table 3. Level of evidence for Early interventions to improve RTW outcomes in workers' compensation settings

Type of intervention	Number of studies/ grey literature	Overall direction of effect	Strength of evidence
Personal domain	7		
Motivational interviewing	5	Positive	Moderate evidence
Personalised interventions / Self-management	1	Positive	Limited evidence
Applying behavioural insights	1	Positive	Limited evidence
Workplace interventions	13		
RTW coordinators	4	Positive	Moderate evidence

Graded RTW programs	5	Positive	Moderate evidence
Early contact and support	8	Positive	Strong evidence
Workplace modification and work accommodation	4	Positive	Moderate evidence
Regular and effective communication and genuine consultation in the workplace	5	Positive	Strong evidence
Service coordination	5	Positive	Moderate evidence
Workplace rehabilitation providers	2	Positive	Moderate evidence
Workplace risk assessments	3	Positive	Limited evidence
Employee assistance programs (such as pre-claim discussions; pre-claim assistance from the employer)	2	Positive	Limited evidence
Healthcare domain	18		
Cognitive behavioural therapy (CBT)	4	Positive	Moderate evidence
Work-focused CBT	3	Positive	Strong evidence
Vocational rehabilitation services	4	Positive	Strong evidence
Work-focused medical, physical and psychological care	3	Positive	Limited evidence
Nurse triage services / Timely appointments with rehabilitation providers	1	Positive	Limited evidence
Problem-solving therapy	1	Positive	Limited evidence
Early medical intervention	2	Positive	Limited evidence
Insurance and compensation domain	8		
Manager mental health training	1	Positive	Limited evidence
Health management and promotion programs	4	Positive	Moderate evidence
Supervisor training	1	Positive	limited evidence
Early claim lodgement /Pre-claim discussion	1	Positive	Limited evidence
RTW management	1	Positive	Limited evidence
Coordinated multi-domain interventions	9	Positive	Strong evidence

Overall, the results indicated varying levels of effectiveness for different types of intervention. In the personal domain, MI was shown to reduce sickness absence and improve sustainable RTW. Meanwhile, in the healthcare domain, there was moderate evidence suggesting that interventions like CBT, work focused CBT and vocational rehabilitation services improved RTW outcomes, especially when tailored to individual needs. For workplace domain interventions, early contact and support, graded RTW programs, and workplace modification and accommodation showed strong or moderate effectiveness. Of note, insurance and compensation domain interventions such as manager mental health training, workplace health management/promotion programs, and supervisor training, improved RTW outcomes, but the body of evidence was only sufficient for the quality to be summarised as limited or moderate.

The most convincing evidence was found for multi-domain interventions (including components from at least two domains). As mentioned above, ample peer-reviewed and grey literature suggests coordinated multi-domain interventions are effective in improving recovery and RTW outcomes among workers with physical and mental health claims. Such interventions include multiple components aimed at improving worker health, work modification, and service coordination.

Other interventions consistently emerged as strategies for successful early interventions from both the academic and grey literature. For example, there was moderate evidence that MI can be effective in improving RTW outcomes for people with work-related MSK and psychological injuries. However, its effectiveness might vary depending on factors such as the nature of the injury or condition, the individual's readiness for change, the skills of the MI practitioner, and the support system in place. It is essential to consider these factors when determining the appropriateness and potential effectiveness of MI as an intervention for RTW.

There was also moderate evidence that vocational rehabilitation services integrated with other RTW interventions improved recovery and RTW following work-related injury or illness. There was some grey literature indicating that vocational rehabilitation professionals' early involvement in the RTW process, combined with CBT, can be effective in identifying potential risks and enabling injured workers to recover more quickly and effectively.⁴⁵

Another aspect of interventions to support injured or ill workers with moderate evidence was improving communication and consultation between workers, employers, insurers, and other stakeholders. Effective communication and consultation appear to be essential to ensure RTW outcomes with key stakeholders, including the worker, employer(s), insurers, and rehabilitation professionals. There was evidence that a simplified and standardised communication process can lead to a better understanding, clearer expectations, and faster responses, which all contribute to the RTW process for workers who have been injured or ill.²⁶

It was clear from the evidence that workplace interventions play a pivotal role in supporting the successful RTW of employees following injuries or illnesses. An essential aspect of this was cultivating an "RTW-friendly" workplace that proactively responds to employees' needs during their recovery. This may involve: flexible work arrangements; the provision of modified duties; and promoting a supportive and inclusive environment. Implementing these practices not only improves employee well-being, but can also expedite and sustain their RTW.

Furthermore, there was evidence that RTW planning before or after a claim is crucial in ensuring an effective and smooth transition for workers who have suffered illnesses or injuries. This key part of early intervention includes careful consideration of the individual's unique needs and the requirements of their tasks in the workplace. For

success, the goal is to craft a personalised RTW plan, setting out the necessary accommodations, adjustments, and support that will facilitate a safe and successful RTW environment. Such a program should lay out definitive phases and tasks for both the employers and employees. Areas like progressive reintegration, modification of duties, provision of training, and ongoing, open communication and consultation between all involved parties appear to be important elements.

Stakeholder feedback indicates that mobile case management approaches, incorporating many of the factors that are likely to be beneficial to improving recovery and RTW, are being implemented in several jurisdictions. We did not find any studies supporting or refuting the effectiveness of mobile case managers in our academic or grey literature search. Therefore, the effectiveness of using mobile case managers should be researched whilst being applied in Australian workers' compensation settings to strengthen the evidence base on improving recovery and RTW outcomes following work-related injuries.

In this review, we included a diverse range of promising interventions that have been implemented and evaluated in international settings. These interventions include MI, CBT and integrated RTW and vocational rehabilitation programs. These interventions have demonstrated significant effects in improving recovery and RTW outcomes in various international contexts. However, careful consideration of systemic, cultural, and social differences is imperative when evaluating the applicability of these interventions in Australia.

4.5.10. Limitations of the grey literature

While numerous unpublished papers and reports advocate for the positive influence of early intervention, the identified grey literature has limitations. A particular challenge

is that many of the good initiatives have only been reported in the grey literature. Whilst such reports are very useful, the lack of peer review can limit the applicability of the findings. According to the evidence hierarchy, as described in the methods section, most of the included literature is graded as providing limited or insufficient evidence. The other problem in the grey literature was the lack of any clear definition of what constituted "early" intervention. Importantly, there was an evident scarcity of well-structured intervention trials. Aside from one pilot intervention trial, the existing grey literature described interventions which were either detachedly grounded in experiences in practice or merely policy recommendations. Consequently, their practical applicability was difficult to judge. Additionally, the reports lacked sufficient detail about the intervention, including what was involved, who was involved, in which population it was being tested, when it was being delivered and in which locations or settings the intervention took place. Unfortunately, this lack of contextual information hampers interpretation of the results.

5. Discussion

This project was commissioned to take a contemporary snapshot of early intervention in workers' compensation schemes across Australia, alongside a scan of the peer-reviewed and grey literature on this topic.

5.1. Defining early intervention

Results of our enquiries with stakeholders clearly indicated the current lack of a consensus definition of what early intervention in workers' compensation schemes is and indeed should be. Our search of the literature also failed to provide a consensus international definition. It was clear that, unless and until a workers' compensation claim is lodged, some stakeholders, particularly insurance regulators, cannot be formally involved with an intervention for an individual worker. However, prior to lodging a claim, there are important potential opportunities for the individual worker, their healthcare provider(s) and the employer to act. Providing intervention to an injured or ill worker as soon as possible might lead to better outcomes, but it should not prevent submission of a workers' compensation claim. Consequently, there were some risks highlighted by some stakeholders regarding intervention prior to the lodgement of a workers' compensation claim. Given that these risks have been highlighted, there may be opportunities within Australia to develop strategies specifically to mitigate these risks. For example, if the workers' compensation system is to operate as a proxy surveillance system for occupational injury or disease, there needs to be visibility of illnesses and injuries, even if effective early intervention has taken place. Likewise, it needs to be emphasised that early intervention can take place alongside a workers' compensation claim.

It was, however, possible to reach some consensus with stakeholders about some principles regarding early intervention in the workers' compensation system currently: that it is time-bound to events in both the disease/injury process and the compensation process and that it has some key features, and can be triggered by various events/occurrences. To be described as "early", the intervention needed to take place as soon as possible after onset of injury/disease and no later than 3 months after the lodgement of a workers' compensation claim. It was agreed that healthcare providers may have opportunities pre- and post-claim to intervene early and that employers cannot intervene unless the worker notifies them, nor can an insurer intervene unless a claim is lodged. It was acknowledged that the timing of interventions after claim lodgement by workers' compensation insurers would vary according to jurisdictional policy (e.g., waiting periods to access compensation schemes) and work practices (e.g., the time taken to lodge and process claims). It was also consensus that to be considered "early intervention", it needed to involve some type of assessment followed by some type of action. A number of triggers were recognised: a third party being informed of a change (e.g. notification of injury), lodgement of a claim, symptoms or features flagged by a screening assessment, time (e.g. a pre-specified timepoint after claim lodgement, and/or use of specific services). Early intervention did not comprise primary prevention nor any service accessed by workers without knowledge of their employer/insurer. Finally, it was agreed that early intervention could not describe any intervention made more than three months after lodgement of a claim, even if it was an intervention triggered by a change of status.

5.2. Barriers and enablers to early intervention

Stakeholders described a number of barriers to early intervention, including, for example, impediments caused by the design and restrictions of the workers'

compensation system itself. Another barrier identified was a lack of employer knowledge and experience, particularly among employers working in small and medium-sized businesses. All stakeholders described the lack of access to early, appropriate healthcare interventions as a major barrier to successful early intervention. Stakeholders also highlighted that some specialist, work-focussed healthcare services (e.g. psychology) were in short supply. There was considerable discussion about the importance of excellent communication and genuine consultation (two-way), and where this was not achieved, it was a clear barrier to any successful early intervention. Communication problems could occur between workers and employers but also with healthcare providers. Stakeholders acknowledged that claim acceptance was often a lengthy process and that this itself restricted capacity for early intervention.

Stakeholders pointed to a number of enablers for successful early intervention. An important facilitator of early intervention was provisional liability, which was seen to enhance the capability of compensation schemes to deliver successful early intervention. However, it was recognised that provisional liability was currently only available for some types of claims in some jurisdictions. Stakeholders emphasised the importance of excellent communication and consultation, evidence-informed approaches and worker-centred approaches. In general, it was advocated that well-trained case managers facilitated good communication and consultation between all relevant parties.

5.3. Current early intervention activities in Australia

A diverse range of current early intervention activities were identified by stakeholders. These included: e.g. the use of screening tools in order to provide triage and timely access to support for ill and injured workers; and systems navigation support for

employees, employers, and service providers. As discussed previously, the use of provisional liability was brought up as an early intervention activity. However, it was acknowledged that it was currently only available in some jurisdictions and for workers with mental injury claims. Another intervention described was the use of mobile case managers to facilitate implementation of early intervention, which was viewed positively in the jurisdiction in which it was commissioned.

Stakeholders were asked about changes that had been implemented within their jurisdictions as a result of early intervention trials. Overall, limited insight was offered about this. Some jurisdictions discussed policy changes which promoted and rewarded early intervention. While stakeholders reported the importance of commissioning evidence-informed interventions, it seemed that there remained fairly limited evidence from which they could work, especially evidence developed within an Australian context.

5.4. Evidence about effective early interventions

In reviewing the literature, it was evident that a major hamper to interpretation was that there was not a universally standardised or widely accepted definition for "early intervention" in the context of the workers' compensation system globally. However, the literature review did provide some evidence for the effectiveness of a range of different interventions. In the personal domain, MI was shown to reduce sickness absence and improve sustainable RTW. Meanwhile, in the healthcare domain, there was moderate evidence suggesting that interventions like CBT, work focused CBT and vocational rehabilitation services improved RTW outcomes, especially when tailored to individual needs. For workplace domain interventions, early contact and support, graded RTW programs, and workplace modification and accommodation showed

strong or moderate effectiveness. Of note, insurance and compensation domain interventions such as manager mental health training, workplace health management/promotion programs, and supervisor training had some evidence of improved RTW outcomes, but mostly in the grey literature. The best evidence was found for multi-domain interventions, including components from at least two domains (personal, healthcare, work-focused), which had good evidence that they could improve work outcomes.

6. Conclusions

Overall, stakeholders in Australia indicated a consensus that early intervention approaches were likely to improve RTW outcomes for workers, employers and insurers. The researchers experienced a tremendous level of engagement and enthusiasm for this project from all stakeholders.

Whilst stakeholders wanted to embrace early interventions, some risks and challenges were reported:

- The structure and regulations of existing schemes could provide opportunity for employers to exploit early intervention to prevent claims
- Insurers and regulators cannot usually intervene until they have received a compensation claim
- There are delays in accessing essential healthcare services that are reducing capacity to achieve successful early intervention
- Relationships, communication and a lack of genuine consultation between healthcare providers, insurers, regulators and employers create a barrier to successful early intervention

The literature scan revealed that coordinated multi-domain interventions involving healthcare, workplace, and insurance stakeholders were likely to be most effective. Interventions such as MI, CBT, work-focused CBT, RTW coordinators, Graded RTW, early worker contact, work modifications, early intervention protocols, and integrated RTW and vocational rehabilitation programs have all been shown to have a positive impact on facilitating recovery and RTW outcomes. However, the evidence suggests that effectiveness varies by context e.g. workers' compensation vs no compensation; nature of injury; size of employer; age of worker; migrant vs non-migrant worker;

informal vs formal worker; rural vs urban worker etc. Whilst the evidence base for early intervention is growing, there remain only limited data from Australia currently. This is important given that, as above, context appears to have major effects on outcomes. Currently, however, there is limited high-quality evidence as to what works in the Australian context. Despite this lack of evidence, the researchers heard about a range of approaches being taken in Australia, pre- and post-claim.

Overall, this research found a high level of understanding of, and belief in, the importance of early intervention to improve work outcomes for injured and ill workers amongst Australian stakeholders.

6.1. Recommendations

6.1.1. Promote adoption of evidence-based early interventions:

There is good evidence from the literature to support that coordinated multidomain interventions improve recovery and RTW outcomes. These interventions, which have been successful in international settings, should be adapted and applied in the Australian context. However, the researchers acknowledge that the opportunities for different stakeholders to implement this recommendation will be variable and dependent on different policies and practices in their specific scheme.

6.1.2. Undertake objective evaluation by stakeholders of their early intervention initiatives

This project emphasises the crucial need for stakeholders to systematically evaluate their existing projects involving early interventions. Ideally, a national evidence-based framework or criteria set could be co-developed to guide this. This would enable a shared understanding of what works /does not work in the setting of Australian

workers' compensation schemes. Workers' compensation authorities and insurers could usefully partner with external organisations to enable independent, systematic evaluation of outcomes suitable for publication in the peer-reviewed literature. One focus for research would be on the risks: benefits of provisional liability on RTW outcomes.

6.1.3. Create more open collaboration, partnership and sharing:

Stakeholders were curious about what was being implemented in different jurisdictions and commented on what they perceived to be happening elsewhere. There should be more engagement with healthcare providers across Australia to improve communication of what is needed from them to improve outcomes for workers. Ideally, a whole-of-government strategy to increase access to timely healthcare for workers involved in the compensation process could be facilitatory. There is an opportunity for Safe Work Australia to facilitate exchange of knowledge and evidence between jurisdictions and other stakeholders in the early intervention space.

6.1.4. Understand and mitigate risks:

There are some risks identified in the creation of early interventions within the workers' compensation system (confidentiality of the worker; use to prevent a claim being made), and more work is needed to better understand this and put in place strategies to mitigate these risks.

6.1.5. Support effective communication and consultation:

Everyone involved needs to explore ways that can further support communication and consultation early in the claims process. Early intervention needs to be underscored by an environment that encourages regular and effective communication and genuine

consultation between all the actors in the early intervention process. These include injured or ill employees and their families, carers and representatives (unions), employers, and service delivery providers (including health practitioners).

6.1.6. Consider strategies to better support healthcare professionals:

This report reveals the crucial role that healthcare providers can play in early intervention. Another important consideration is that whilst this project is set within workers' compensation schemes, and hence implicitly in cases of illness or injury caused by work, healthcare providers play the same role in illness or injury not caused by work. They can, therefore, act as a barrier or facilitator to early intervention in all settings. The importance of good work to health is widely accepted, but to achieve good work outcomes for workers, healthcare providers need more information. All stakeholders could usefully promote the benefits of good work for improving health outcomes to encourage developing better education and training of healthcare providers to support their critical role in early intervention and the workers' compensation process.

6.1.7. Continue to inform employees:

It is important that all workers fully understand their workers' rights, how to recognise occupational disease/injury and what actions to take in the event of an injury or when symptoms of an injury or illness emerge. A worker's right to make a workers' compensation claim should never be in question and must not be affected by implementing or accessing early interventions.

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9. Appendices

9.1. Appendix 1: Reports from stakeholder consultation

The following is a compilation of some of the relevant reports and literature sent by expert stakeholders and those interviewed for this study.

Publications (additional to those cited elsewhere in this report)

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Organisations:

RTW knowledge base <https://www.rtwknowledge.org>

ISCRR <https://www.iscrr.com.au/>

Superfriend: <https://www.superfriend.com.au/>

Return to work: <https://returntowork.workplace-mentalhealth.net.au/>

Institute for Work & Health <https://www.iwh.on.ca/>

NIOSH <https://www.cdc.gov/niosh/index.htm>

European Agency for Safety and Health at Work <https://osha.europa.eu/en>

National Research Center for the Working Environment in Copenhagen, Denmark <https://nfa.dk/en/Om-NFA>

Partnership for Work Health and Safety: <https://pwhs.ubc.ca/publications/>

Programs:

Navigator group: <https://www.navigatorgroup.com.au/navigator-support-program>

Leap Forward: <https://www.letsleapforward.com/>

Reconnect: <https://www.rtwsa.com/insurance/return-to-work-coordinators/workplace-advisory-services/reconnect-supporting-workers-throughout-any-stage-of-their-claim-journey>

ReturntoWorkSA <https://www.rtwsa.com/insurance/injury-prevention/mentally-healthy-workplaces/tools-and-resources-for-a-mentally-healthy-workplace>

WorkSafe Victoria <https://www.worksafe.vic.gov.au/provider-information>

Office of Industrial Relations Queensland <https://www.oir.qld.gov.au/>

Comcare <https://www.comcare.gov.au/safe-healthy-work/research-evidence/research-projects>

9.2. Appendix 2: Stakeholder Interview Guide

The following questions provided a guide for the semi-structured interviews:

Defining Early intervention

What is early intervention?

What are the contextual and practical definitions of early intervention?

What definitions of early intervention have you used in your practice?

Experience of early intervention

What is your experience in early intervention in workers' compensation settings?

What kinds of programs, trials, practices?

What is your role in successful early intervention?

Defining early intervention and its value

When do you think 'early intervention' should occur?

When is the best time for workers to access early intervention? Why?

Initiating and targeting early intervention

What triggers do you think are important to access early intervention?

Are there particular at-risk workers that early intervention should target?

If so, how can these workers be identified? What models do you use, and are they effective?

What experiences do you have of early intervention trials, pilots or ongoing early intervention practices?

Barriers and enablers

What are the barriers to accessing early intervention?

What are the enablers?

Lessons learned

What are some of the highlights and pitfalls you identified in your work?

Is there anything in hindsight you would do differently?

Is there anything you would like to do but aren't currently possible in your scheme?

What changes were implemented within your system as a result of early intervention trials?

9.3. Appendix 3. Summary of evidence from the academic literature

International research from Australia, Norway, Denmark, Canada, and the United States

Authors	Study design	Location of the study	Target group	Intervention provided by	Intervention (what does the intervention group do, in addition to control group)	Key findings
A. Personal Domain						
1. Motivational interviewing						
Gross et al., 2017 ²³	Randomised Control Trial (RCT)	Canada	Workers with musculoskeletal disorders	Clinicians	1-3 days workshops/ conversations about change to strengthen the client's motivation for change	Motivational interviewing during occupational rehabilitation improves sustainable RTW outcomes compared to usual care.
Aasdahl et al., 2023 ⁶⁰	RCT	Norway	Workers with any diagnosis	Social insurance case workers	Two face-to-face sessions (for a max of 1 hour each) with the caseworker at 7 and 9 weeks after injury/ condition	Motivational interviewing was not more effective than usual case management in promoting RTW.
Park et al., 2018 ²⁰	RCT	Canada	Workers with musculoskeletal disorders	Clinicians	Usual care at rehabilitation centre + individual motivational interviewing sessions	Motivational interviewing, along with routine functional restoration, is more effective for improving RTW than usual care alone.
Aanesen et al., 2023 ²²	RCT	Norway	Workers with musculoskeletal disorders	Case managers	The trial was a three-arm, pragmatic RCT with 6 months follow-up, including an internal pilot.	Adding motivational interviewing to usual case management resulted in a non-statistically significant reduction in sickness absence over 6 months for workers on sick leave due to musculoskeletal conditions.
Vanovenberghe et al., 2023 ^{24*}	Pilot RCT	Belgium	Patients receiving a disability benefit	Social security paramedic (i.e., motivational interview practitioner)	The motivational interview intervention involves a single conversation about behavioural change in terms of recovery or RTW of the work disabled person	Motivational interviewing shows promising outcomes in terms of RTW. Brief motivational interviewing in the context of work disability can contribute to a faster RTW and less relapse.

B. Workplace interventions						
1. Return to work coordinators (RTW Coordinators)						
Tan et al., 2023 ²⁷		Singapore	Workers with traumatic work-related musculoskeletal disorders, burns and joint pain	Trained RTW Coordinators	RTW Coordinator aided workers RTW by: assessing functional and psychosocial factors and the workers pre-injury job roles, connecting with the employer and other RTW participants, attending outpatient clinical sessions with the worker, shaping RTW objectives and strategies, visiting the workplace and suggesting job adaptation ideas. Following RTW, the RTW coordinator maintained communication with the worker and employer.	The hospital-based RTW programme enabled the coordination of multi-disciplinary care to facilitate early and safe return to work. The programme was effective in promoting an increase in self-perceived health and work ability across the duration of the programme.
Dol et al., 2021 ²⁸	Systematic Review (SR)	International	Sick/injured workers	NA	Workers had face-to-face contact with a RTW Coordinator	Face-to-face contact with RTW Coordinator reduced work absence duration and increased RTW rates
Lane et al., 2018 ²⁹	Prospective cohort study	Australia	People with musculoskeletal or mental health conditions who received 10 or more days workers' compensation wage-replacement		Workplace-based RTWCs	Workplace-based RTW Coordinators effectively improved RTW outcomes for injured workers.

2. Graded Return to Work (Graded RTW)						
Mikkelsen and Rosholm, 2018 ²¹	SR	International	Work-related mental health conditions	NA	Graded RTW	Graded RTW enhances work participation for people with mental health disorders.
Streibelt et al., 2018 ³⁰	Observational	Germany	Work-related mental health conditions	NA	Graded RTW	Graded RTW, in addition to a multimodal rehabilitation, is effective in enhancing successful work participation in people with mental health conditions.
3. Early contact with the workers from the workplace						
Mikkelsen and Rosholm, 2018 ²¹	SR	International	Work-related mental health conditions	NA	Contact with the workplace	Contact with the workplace was associated with significantly larger effect sizes in the meta-analysis.
Donovan et al., 2017 ³¹	Pre-post intervention design	Australia	Work-related musculoskeletal disorders	Multidisciplinary team	Workplace-based early intervention program including immediate reporting and triage, reassurance, multidisciplinary participatory consultation, workplace modification and onsite physiotherapy	Workplace-based early intervention program had a positive effect on RTW outcomes for work-related musculoskeletal disorders in poultry meat processing workers.
4. Work modifications and accommodation⁺						
Cullen et al., 2018 ¹⁷	SR	International	Workers with musculoskeletal, pain-related and mental health conditions	NA	Workplace accommodations such as provision of modified duties, modified working hours, supernumerary replacements, ergonomic adjustments or other worksite adjustments.	Moderate level of evidence that work accommodations reduce lost time associated with these conditions.
5. Early intervention protocol targeting psychosocial risk factors for workers with soft tissue injuries to improve RTW outcomes						
Nicholas et al., 2020 ³⁸	A controlled, non-randomized prospective design	Australia	Workers with soft tissue injuries	General Practitioners, psychologists and RTW coordinators	Screening psychosocial risk factors, coupled with a structured protocol that encourages active collaboration between key stakeholders to address identified psychological and workplace factors delaying RTW	Intervention group had, on average, less than half the number of lost work days compared to the usual care group.

C. Healthcare Domain						
1. Cognitive Behavioural Therapy (CBT)						
Xu et al., 2023 ⁴⁰	SR	International	Employees at a workplace and on sick leave or leave due to a workplace incident	NA	CBT compulsory components in combination with common CBT techniques	CBT-based interventions are effective in reducing the length of sick leave and facilitating the RTW of employees in the intervention group.
Salomonsson et al., 2017 ⁴¹	RCT	Sweden	Patients on sick leave due to common mental disorders	Licensed psychologists	Patients were randomised to CBT, a RTW intervention (RTW-I), and a combination of them (COMBO)	No significant difference between treatments in days on sick leave 1 year after treatment start. All treatments were associated with large pre-treatment to post-treatment improvements, and results were maintained at 1-year follow-up.
Salomonsson et al., 2020 ⁴²	RCT	Sweden	Patients on sick leave due to stress-related disorders	licensed psychologists	Patients were randomised to CBT, a RTW intervention (RTW-I), and a combination of them (COMBO)	CBT led to greater reduction of symptoms than RTW-I posttreatment, but COMBO did not differ from CBT or RTW-I. However, RTW-I reduced sick leave faster than CBT.
2. Work-focused CBT						
Ito et al., 2019 ⁴⁴	Pilot study	Japan	Workers on sick leave due to depression		Work-focused CBT including behavioural activation therapy, cognitive therapy, and problem-solving therapy techniques was conducted for eight weekly 150-minute sessions	Work-focused CBT may be a feasible and promising intervention for Japanese workers on leave due to depression
Dalgaard et al., 2017 ⁴³	RCT	Denmark	Workers with work-related stress	Psychologist	One-hour sessions of work focused CBT was conducted 6 times over 16 weeks.	There was a tendency towards faster RTW in the work-focused CBT group compared to control group.
Cullen et al., 2018 ¹⁷	Systematic Review	International	Workers with musculoskeletal, pain-related and mental health conditions	NA	Found to have a positive effect on reducing lost time.	For mental health conditions, implementing a work-focused CBT can help reduce lost time and costs associated with work disability.

3. Interventions to promote Work-Focused Care						
Xie et al., 2021 ³⁶	Scoping Review	International	Individuals with Musculoskeletal conditions	Healthcare providers	Multidisciplinary interventions, including: <ul style="list-style-type: none"> • work-related assessment to identify barriers to working, • vocational advice/coaching or education to address barriers to working; • involvement of the workplace stakeholders, • restoration of fitness for work and; • Regular communication with multidisciplinary team members 	Good evidence demonstrating the potential for healthcare providers to improve work outcomes for those with musculoskeletal conditions.
4. Other health-focused interventions						
Cullen et al., 2018 ¹⁷	SR	International	Workers with musculoskeletal, pain-related and mental health conditions	NA	Components may include: <ul style="list-style-type: none"> • graded activity / exercises • medical assessments • functional capacity evaluations • physical therapy • occupational therapy • medication • other psychological therapy • work hardening • psychosocial assessments 	These programs / practices facilitate the delivery of health services to an injured or ill employee either in the workplace or in settings linked to the workplace (e.g., visits to health-care providers initiated by the workplace)
D. Insurance and compensation domain						
1. Manager mental health training						
Milligan-Saville et al., 2017 ⁴⁹	RCT	Australia	Workers with mental illness	NA	A 4-hour Manager Mental Health Training	A 4-hour manager mental health training programme could lead to a significant reduction in work-related sickness absence.
2. Workplace health management/promotion programs						
Ryan et al., 2018 ⁵⁰	Observational study (pre-post)	Australian metropolitan surgical hospital	Work-related injury claimants	Injury management team	Workplace health management program - biopsychosocial approach to health promotion and injury prevention.	The program was associated with reduced lost time injury days and premium costs.

3. Supervisor training						
Spector and Reul, 2017 ⁵⁵	Parallel-group randomised trial	USA	Injured employees	Supervisors	Brief audio-visual supervisor training module on supervisor RTW attitudes and knowledge	A trend towards greater increase between baseline and 3 months follow-up in agreement that the supervisor can manage the RTW process
4. The workplace social system: Co-worker and supervisor social support						
Jetha et al., 2018 ³²	Longitudinal cohort study	Australia	Workers' compensation claimants with musculoskeletal /psychological injuries	NA	Co-worker and supervisor social support	Promoting supervisor support and positivity towards an injured worker is an important organisational work disability management strategy.
White et al., 2019 ³³	SR	International	Individuals with Work-Related Injuries	NA	Social support and integration, including support from supervisors, co-workers, family, friends, peers, and mentors. Aspects like a sense of community, belonging, engagement in social activities, and interpersonal relationships	Social support and integration may influence RTW following work-related injury
Vogel et al., 2017 ⁶¹	SR	International	Workers with musculoskeletal and mental health problems	NA	RTW programmes for at least four weeks vs usual care	RTW programs had no effects compared to usual practice on RTW outcomes.
E. Multi-domain interventions						
1. Integrated RTW & Vocational rehabilitation programs						
Macpherson et al., 2022 ⁴⁶	Observational	Canada	Work-related injuries	Ontario Workplace Safety and Insurance Board	Integrated RTW & Vocational rehabilitation program	The workplace rehabilitation program was linked to reductions in cumulative disability days paid for all claims.
2. Graded RTW and contact with the workplace						
Mikkelsen and Rosholm, 2018 ²¹	SR	International	Work-related mental health conditions	NA	Combined interventions (Graded RTW + Contact to the workplace)	Larger effects on RTW for stress-related disorders.

Cullen et al., 2018 ¹⁷	SR	International	Workers with musculoskeletal, pain-related and mental health conditions	NA	Multi-domain intervention with components in at least 2 of the following domains: Health-focused interventions, service coordination interventions, work-modification interventions, and multi-domain interventions	Strong level of evidence for reducing lost time associated with these conditions.
Tingulstad et al., 2022 ⁵⁷	SR	International	Workers with musculoskeletal, pain-related and mental health conditions	Case management and healthcare providers	Work focused CBT, occupational therapy, activating problem-solving approach, stress reduction program, additional dialogue meeting, additional workplace intervention, and an electronic health module.	The review did not provide conclusive evidence regarding which work-related intervention is most effective for RTW.
Nowrouzi-Kia et al., 2023 ³⁵	SR and meta-analysis	International	Individuals with work-related mental health conditions:		Health-focused interventions, service coordination interventions, work-modification interventions, and multi-domain interventions.	These interventions support RTW process with potentially differing impacts.

9.4. Appendix 4: Summary of grey literature on early intervention and RTW

Organisatio n/ Setting and country	Intervention				Key Findings/ summary	Evaluation process	Recommendations provided
	Type /description	When	Targeted workers	How was the screening done?			
1. Comcare’s Early intervention service pilot, 2020 (Report)							
Comcare, Australia ²⁵	The pilot group received access to a nurse triage service (by calling 000, treatment referrals, physical and psychological injuries treatment, self-management and first aid support), and follow-up with the employer.	Immediately after injury	Injured or ill workers (347 triage calls) enrolled in the early intervention	Participants were screened by a nurse triage service. The nurse clinically assessed the employee's condition and provided treatment advice, including a referral where appropriate.	Early interventions (nurse triage) can lead to successful recovery, and RTW.	Evaluated independently by Deloitte	Employers should consider implementing a structured early intervention program that includes a triage service, incident notification to employers at the time of the triage call, and a robust data collection framework. The program should be offered to any employee who sustains an injury/illness at work or developed symptoms that impact on their ability to work, regardless of the cause of the injury/illness or symptom.
2. The impact of Workplace Rehabilitation Providers (WPRP): A report of claims data analysis, EY report, 2021							
SIRA, Australia ⁴⁸	Timely appointments of Workplace Rehabilitation Providers (WRP)	Within the first 8 -13 weeks of injury	Injured workers with moderate to severe injury	Not reported	Early initiation of workplace rehabilitation providers improves RTW.	Analysis are based on the claims data submitted to SIRA	Early WRP engagement on moderately complex claims shows improvement in RTW
3. New RTW Standard of Practice in force: standard 34, SIRA, 2022 (Policy document)							
SIRA, Australia ⁵⁹	Establish effective relationships, assess for risk of delayed recovery and work loss, and identify and agree the tailored actions to	During the first four weeks of a claim	Workers submitted a claim with a significant injury	Not applicable	Not applicable	Not applicable	<ul style="list-style-type: none"> • Early supportive contact; • Identifying risk factors for delayed recovery; • Matching interventions to risks; • Equipping and supporting the worker; • Supporting the employer; • Coordinated multi-domain approach;

Organisatio n/ Setting and country	Intervention				Key Findings/ summary	Evaluation process	Recommendations provided
	Type /description	When	Targeted workers	How was the screening done?			
	optimise recovery and work outcomes.						<ul style="list-style-type: none"> Develop injury management plan; and Review.
4. Applying Behavioural Insights to RTW, Behavioural insights unit, NSW Government report, 2016							
NSW Gov, Premier & Cabinet, Australia ²⁶	Behavioural insight interventions included targeted, personalised interventions emphasising effective communication and goal setting. The interventions focussed on six key areas: 1. simplification; 2. personalisation; 3. priming, 4. timeliness; 5. commitments; and 6. case conferences.	Staff members encouraged to send out Recovery at Work Plan at day 5 and the Work and Health Plan at day 10, instead of the scheme guideline of 10 and 21 days	Injured NSW governme nt worker in the departmen t of education	Not reported	, Workers in the treatment group returned to full capacity 27% faster in the first 90 days compared to the control group., the intervention aid worker recovery and promote a quicker RTW.	Applying weekly tracker, refresher training for the trial teams, collection of individual feedback and random audit	<ul style="list-style-type: none"> I. Simplify communication II. Focus messaging on RTW III. Empower workers IV. Focus on people not process V. Engaging Doctors is critical VI. Develop the evidence base

5. Working Together: Successful Strategies for RTW, Institute for Work & Health, 2008							
Institute for Work & Health, Canada ⁶²	<ul style="list-style-type: none"> • Early contact • Planning for the worker's return • Implementing a successful RTW program • Creating a RTW friendly workplace 	Early	Injured workers	Not applicable	Not applicable	Not applicable	<ol style="list-style-type: none"> 1. Employer should contact injured/ill worker promptly and considerately. 2. Someone should coordinate RTW responsibilities. 3. Employer must offer modified work to injured/ill workers. 4. RTW planners must ensure the plan supports returning worker without disadvantaging others. 5. Supervisors require training on work disability prevention and RTW planning. 6. With worker's consent, employers and healthcare providers communicate about workplace demands, as necessary. 7. The workplace must demonstrate a strong commitment to health and safety
6. Outcomes of a Workers' Compensation Early Intervention for Delayed Recovery Program, 2018							
Ascellus / Vocational Rehabilitation Organisation, USA ⁴⁵	An early intervention CBT program	Not reported	Injured workers categorised as high or very high risk for delayed recovery.	Voluntary	After CBT majority of injured workers were able to RTW.	Not reported	Injured workers, who might have remained in the disability system for long, were swiftly reintegrated into the workforce. As a result, the company accrued substantial cost savings and successfully facilitated the return of the employees to their respective positions.

7. An intervention to drive the earliest possible RTW, IPAR Website							
IPAR., Australia ³⁷	Not reported	Not reported	Not reported	Not reported	Not reported	Not reported	Maintaining consistent contact with stakeholders, Assessing worker capabilities and risks, Creating a shared RTW plan, Offering employer education, Arranging case conferences for capacity enhancement and discussing ongoing support with employers/referrers
8. An integrated early intervention model produces results, Productivity Commission report, 2002							
VWA (Victorian WorkCover authority), Australia ⁶³	a multifaceted approach with the following components. <ul style="list-style-type: none"> • Early appropriate Medical intervention • Workplace intervention • Supporting the worker 	Injury notification within between 20 and 60 mins of a workplace injury occurring	Employed a 'quasi experimental' before-after design using historical controls.	Not reported	Effective workplace communication intervention reduced costs and disabilities significantly.	VWA Claims analysis	Shifting workplace culture to prioritise support, care and communication clarifies injury management roles and expectations for all team members (that each person within the team is clear about the system, expectations and outcomes.) The workplace intervention should ensure system of early reporting.
9. Expanding Early Intervention for Newly Ill and Injured Workers and Connections to Paid Medical Leave: Urban Institute, Policy brief, 2018							
Department of Labor, USA ⁶⁴	Implementing a paid medical leave program benefit.	Target the right people at the right time,	Employees with recent work-limiting medical conditions	Early intervention for employees with potentially disabling conditions, prior to applying for social security benefits	Not applicable	Not applicable	Enhancing early intervention for newly ill and injured employees, along with the integration of paid medical leave, promotes timely RTW.
10. Interventions to improve RTW outcomes in individuals with mental health conditions, Report by ISCRR, 2015							
WorkSafe Victoria, Australia ⁴⁷	CBT; Problem solving therapy; Work-directed interventions; Exercise interventions; Medications	Not reported	Individuals with mental illness		These interventions help reduce RTW duration in depression cases.	Snapshot evidence review'	For Adjustment Disorder: <ul style="list-style-type: none"> • Problem-solving interventions hasten partial/full RTW versus guideline-based care. • No significant difference in RTW days with (CBT) compared to care as usual. For Depression:

							<ul style="list-style-type: none"> • Work-directed, psychological, and combined interventions (psychological and antidepressant medication) reduced RTW days compared to usual care. • Remote CBT, supplemented with usual care, effectively reduced RTW days. • No specific exercise or antidepressant class showed superior efficacy in RTW interventions
11. RTW: A comparison of psychological and physical injury claims Analysis of the RTW Survey results, SWA Report, 2017							
Safe Work Australia ³⁴	Pre-claim discussions; Pre-claim assistance from the employer; Early claim lodgement, Early contact	Worker before they submitted a claim	Physical and Psychological injuries	<p>Early intervention improves RTW outcomes.</p> <p><u>Psychological Claims:</u></p> <ul style="list-style-type: none"> • RTW rate significantly increased (74%) when the employer provided-assistance. <p><u>Physical Claims:</u></p> <ul style="list-style-type: none"> • Employer assistance boosted RTW rate from 71% to 84%. • Earlier claim lodgement increased RTW likelihood for both physical and psychological claims. • Workplace Contact: Early contact by the workplace correlated with higher RTW rates overall. 	Using the RTW Survey (the Survey) data.	<p>Supportive EI approaches include:</p> <ul style="list-style-type: none"> • Cultivating a trusting workplace environment where claims are perceived as fair, promoting early reporting. <ul style="list-style-type: none"> ➢ Implementing early reporting systems that are user-friendly ➢ Facilitate relevant information sharing. ➢ Ensure employee and supervisor contentment. ➢ Activate prompt rehabilitation. ➢ Have minimal disputes, reinforcing early reporting. • Encouraging workers to communicate and seek aid from employers before lodging a claim. • Initiating prompt contact by the employer or claim organisation. 	
12. Safe and Well: Injury and Illness Management Framework, Department of Education and Training, Victoria, Australia, 2020 (strategy document)							
Department of education and training,	Engage with staff; Rehabilitation; Engage Community; Work supports	as early as possible	Those experienced work-	Not applicable	Not applicable	Not applicable	<p>Strategies for early intervention include:</p> <ul style="list-style-type: none"> • conducting regular workplace risk assessments/ audits • employee assistance programs

Victoria, Australia ³⁹			place injury			<ul style="list-style-type: none"> healthy workplace policies and/or flexible work arrangements
13. Interventions to support RTW or recovery at work of older healthcare workers ageing workforce project, Monash University report, 2021						
Employers Mutual Limited, Australia ⁶⁵	Not applicable	post-injury and ongoing	Older healthcare workers	Not applicable	Review, claim analysis, Intervention mapping and co-design workshop	RTW management and workplace environmental changes. Implementing a single intervention is likely to see benefit, however employing combined interventions together is likely to yield the most positive results.
14. Targeting Early intervention to Workers Who Need Help to Stay in the Labor Force, 2015 (policy report)						
Department of Labor, USA ⁶⁶	Use of EI services to keep more employees working despite long-term health issues.	Employees with limited EI access, at risk of turning to social security without EI, and a likelihood of remaining in the workforce with EI		Not applicable	Not applicable	Early intervention refers shortly after workers identified a new or existing condition that may cause extended leave, unless prompt aid is provided to retain their job.
15. Work-connected interventions for people with psychological injuries, 2020 (Research report)						
SIRA, Australia ⁵⁸	Identify and prioritise interventions that can improve the management of people with psychological injury claims in NSW through key stakeholder interviews, rapid review of published academic and grey literature. The interventions identified were categorised into psychological intervention alone, psychological plus other intervention or other intervention alone.		Appropriate evidence-based clinical treatment alone will not necessarily lead to RTW. Effective approaches need connection between the treatment being applied and what is happening in the workplace.		The effectiveness of the interventions is not evaluated	<ul style="list-style-type: none"> Engage rehabilitation providers as early as possible. Streamline early identification and access to appropriate care Utilise employee assistant program providers for early intervention. Explore telehealth options for improved access to earlier intervention and initial treatment while awaiting local clinician services Beyond psychological treatment, address biopsychosocial factors Provide training and skills development for supervisors and managers to enhance their ability to handle psychological injury cases. Customise management strategies to the individual's needs and circumstances.