

WorkHealth Improvement Network (WIN) Evaluation Research Project: Final Report

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List of Definitions

Table 1 below contains definitions and some explanatory notes for terms used in this report.

Table 1: Definitions for terms used in this report

Term	Definition
Incapacity days - complete	Total number of days for which an employee was certified as completely incapacitated to work. ¹
Incapacity days - partial	Total number of days for which an employee was certified to work reduced hours and/or duties as a result of a workplace related injury or illness. ¹
Integrated approaches	<p>An integrated approach refers to “The strategic and systematic integration of distinct environmental, health, and safety policies and programs into a continuum of activities that enhances the overall health and well-being of the workforce and prevents work-related injuries and illnesses.”² (p695).</p> <p>An integrated approach to employee health has been defined as “a strategic and operational coordination of policies, programs, and practices designed to simultaneously prevent work-related injuries and illnesses and enhance overall workforce health and wellbeing.”³ (pS13).</p>
Integrated approaches champion	An employee assigned at each worksite to lead the Integrated Approaches Committee in the WIN program. This person is usually employed in a middle management position and is able to communicate with senior leadership and employees about health, safety and wellbeing issues. ⁴
Leading indicators of OHS	Leading indicators of occupational health and safety (OHS) “measure actions, behaviours and processes, the things people actually do for safety, and not simply the safety-related failures typically tracked by trailing [lagging] measures.” ⁵ (p29). Leading indicators of OHS are measures of the predictors, or root causes, of OHS performance in a workplace. ⁶
Lost-time injuries	Illnesses or injuries sustained in the workplace that results in employees taking one or more days off work. ⁷
Medical treatment injuries	Illnesses or injuries sustained in the workplace that did not required time off work but where medical treatment was administered (excluding first aid treatment). ⁷
Mental wellbeing	<p>Mental wellbeing is “the embodiment of social and emotional wellbeing – not merely the absence of mental illness. Mental wellbeing is a dynamic state in which people are able to develop their potential, work productively and creatively, build positive and respectful relationships with others, and meaningfully contribute to the community.”⁸</p> <p>“The positive dimension of mental health is stressed in the World Health Organization's definition of health as contained in its constitution “health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity ”</p> <p>Mental health is defined as a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community.”⁹</p>

Term	Definition
Musculoskeletal disorders	<p>“Musculoskeletal disorders “include a wide range of inflammatory and degenerative conditions affecting the muscles, tendons, ligaments, joints, peripheral nerves, and supporting blood vessels.”¹⁰ (p13).</p> <p>“Work-related musculoskeletal disorders (MSDs) include all musculoskeletal disorders that are induced or aggravated by work and the circumstances of its performance.”¹¹ (p13).</p>
Near misses	“Any unplanned incidents that occurred at the workplace which, although not resulting in any injury or disease, had the potential to do so.” ⁷ (p6).
Number of days of compensation paid	Total number of days that compensation was paid for lost-time injuries (LTIs are defined above). ¹
Reported hazards	Any activity, procedure, plant, process, substance, situation or any other circumstance that could cause, or contribute to causing, a major incident that has been reported by a worker to management. ¹²
Reported incidents	Occurrences of injury/disease that were reported to management by employees. ¹³
Reported near misses	“Any unplanned incidents that occurred at the workplace which, although not resulting in any injury or disease, had the potential to do so” ⁷ (p6) that were reported to management.
Sick leave days	All days recorded as “sick leave.” Sick leave can include both paid and unpaid leave (e.g. unpaid leave may be taken by casual employees who are not entitled to paid sick leave, or employees that have used all their sick leave or entitlements).
Support	<p>Support “ includes the encouragement, sponsorship and resources provided by the organization, line management and colleagues.”¹⁴ (p95).</p> <p>This construct is divided into managerial support which is support from the organisation and line managers and colleague support which represents support from colleagues.¹⁵ (p97).</p>
Total number of working days lost due to injury/illness	The total number of working days or shifts lost from work as a result of an injury or illness, whether work-related or not (i.e. sustained in the workplace and those sustained outside of work). ¹
Unreported incidents	An OHS incident that was not reported to any company official. ¹³
Worksite audit	A questionnaire designed to collect data at the worksite level. In the WIN evaluation, IA champions were asked to complete worksite audits including questions about: worksite and workforce characteristics; types of facilities, policies, programs and training; the Indicators of Integration tool; and OHS and human resource data (e.g., lost time injuries, staff turnover).

Table 2: List of acronyms used in this report

Acronym	
CI	Confidence interval
FTE	Full time equivalent
HP	Health promotion
HSE (UK)	Health and Safety Executive (United Kingdom)
HRM	Human resource management
IA	Integrated approach
M	Mean
MSD	Musculoskeletal disorders
OHS	Occupational health and safety
OPM-MU	Organizational Performance Metric-Monash University (a measure of the leading indicators of OHS)
PDSA (cycle)	Plan-Do-Study-Act (cycle)
SD	Standard deviation
SF-12	Short-Form-12 (a measure of physical and mental health)
WIN	WorkHealth Improvement Network

1. Executive Summary

The WorkHealth Improvement Network (WIN) program was designed by WorkSafe Victoria with the aim of trialling an integrated approach (IA) to employee health, safety and wellbeing. The program was implemented in a strategic collaboration with the Department of Health and Human Services (DHHS) and the Victorian Chamber of Commerce and Industry. The two industry networks, public hospitals and manufacturing in Victoria, were led by a network chair. The program was implemented in 31 worksites across three waves from March 2015 to July 2016.

An integrated approach to employee health is defined as ‘a strategic and operational coordination of policies, programs, and practices designed to simultaneously prevent work-related injuries and illnesses and enhance overall workforce health and wellbeing’ (p. S13).³ The WIN program aimed to trial an IA to improve safety culture, enhance mental wellbeing and decrease musculoskeletal disorders.

In the WIN program, worksite representatives were guided to set up an IA committee (where possible) representing occupational health and safety (OHS), health promotion (HP), and human resource management (HRM) to implement specific WIN activities intended to improve employee health, safety and wellbeing. The IA committees used a continuous improvement model in the form of Plan-Do-Study-Act (PDSA) cycles for their WIN activities, where small-scale ideas could be tested, changed, and then implemented, if deemed successful by the worksites.

1.1. The WIN Evaluation Research Project

WorkSafe Victoria, through the Institute of Safety, Compensation and Recovery Research, commissioned a research team from Monash University and the University of Melbourne to undertake an independent evaluation of the WIN program. The evaluation commenced in January 2015 and concluded in February 2017.

First, this report provides a brief overview of the WIN program. Second, the main aim of the report is to present the final results of the WIN evaluation that assesses the process and impact of the WIN program by addressing the following areas:

- ▶ the implementation of an integrated approach including barriers, facilitators and lessons learnt;
- ▶ changes at worksites from baseline to follow-up;
- ▶ an economic analysis; and
- ▶ the sustainability of an integrated approach.

The evaluation of the WIN program was undertaken at four levels, that is, the Occupational Health and Safety Regulator (WorkSafe Victoria), industry networks, worksites and employees, and across four time points, that is, at baseline, end of wave, end of program and six months post-program. The evaluation included collection and analysis of:

- 150 PDSA reporting forms that documented WIN activities;
- 25 worksite audits completed by the IA champion at worksites at baseline and follow-up;
- 25 interviews and 51 focus groups;
- employee surveys completed by 2,064 employees at baseline and 1,005 employees at follow-up; and
- compensation claims data and costs related to the WIN program.

1.2. Key findings

The WIN program applied a novel approach to industry collaboration. The network structure and processes such as learning workshops offered opportunities to the participating worksites to learn and share information throughout the program. Worksites then applied their new knowledge of integrated approaches to implement a range of activities designed to improve safety culture, enhance mental wellbeing and decrease musculoskeletal disorders. A feature of the WIN program was the availability of data to inform understanding of health, safety and wellbeing across the two networks. The WIN program trialled several methodologies and tools that could be sustained in the participating worksites and adapted for use in future programs.

Key findings across the four areas of the WIN evaluation are summarised here.

1.2.1. Program implementation

- Worksites in both networks used multiple PDSA cycles to implement a range of WIN activities. Public hospital worksites were more likely to undertake focus group activities with employees in order to engage employees and determine priorities for IA activities. The majority of manufacturing worksites designed activities to develop new procedures (e.g., the use of floor-mats to prevent musculoskeletal discomfort).
- Employee participation in WIN activities was relatively stable across the public hospitals worksites from baseline to follow-up. In the manufacturing worksites employee participation increased slightly from baseline to follow-up.
- Common barriers to the implementation of an integrated approach in the WIN program included: lack of leadership support and commitment; worksite culture and resistance to change; time constraints of the WIN program; complexity of the WIN program; lack of funding or access to resources; and lack of capacity in smaller worksites.
- Key facilitators of an integrated approach in the WIN included: the application of evaluation results; integrated approaches being used as a new way of working; the support of networks; the IA champion and committee; PDSA cycles as 'small wins'; and leadership support and commitment.

1.2.2. Worksite changes from baseline to follow-up

- ▶ The worksite audits included an 'Indicators of Integration' measure. Scores on this measure for worksites in the public hospitals and manufacturing networks showed some improvement, on average, from baseline to follow-up. A comparison of integration scores across the two networks showed that 7 of the 10 manufacturing worksites had improved integration scores at follow-up while only 8 of the 16 worksites in public hospitals had improved integration scores at follow-up.
- ▶ Key findings from the employee survey showed that approximately half of the worksites in each network demonstrated improvements in employee ratings of safety culture, mental health, physical health and a reduction in musculoskeletal disorders:
 - a greater percentage of worksites in the public hospitals network than in the manufacturing network reported improvements in safety culture from baseline to follow-up. Employees in the public hospitals network rated their worksites lower overall on leading indicators of OHS, compared to those in the manufacturing network.
 - employees in the manufacturing network rated their mental health higher than those in the public hospitals network but physical health was rated at approximately equivalent levels in both networks.
 - employees in the public hospital network reported a slight increase in the experience of musculoskeletal disorders from baseline to follow-up. Conversely, there was a decrease in the experience of musculoskeletal disorders from baseline to follow-up in the manufacturing network. Overall, the employees in the manufacturing network experienced fewer musculoskeletal disorders compared to those in the public hospitals network.

1.2.3. Economic analysis

- ▶ In the public hospitals network, reported incidents, lost time injuries and medical treatment injuries decreased from baseline to follow-up. In the manufacturing network, reported incidents increased from baseline to follow-up although lost-time and medical treatment injuries were roughly the same. For worksites in both networks, reported near misses and reported hazards increased from baseline to follow-up.
- ▶ It is possible that the increases in reported near misses and hazards could reflect a greater awareness of potential dangers and hazards as a consequence of the WIN program.
- ▶ The reductions in workplace injuries observed following the implementation of the WIN program did not translate into an improvement in productivity or reduction in compensation claims.

1.2.4. Sustainability of an integrated approach at worksites

- ▶ Key factors contributing to the likelihood that a worksite would sustain an integrated approach beyond their participation in the WIN program include: the support and commitment of leaders in their organisations; the ongoing role of an IA champion and committees with suitable knowledge, skills and resources; frequent employee consultation; the use of evaluation research to guide decisions; and monetary investment and support for health, safety and wellbeing activities.

1.3. Recommendations

The WIN program is an example of an new partnership approach for WorkSafe Victoria. The model was created for network chairs in DHHS and the Victorian Chamber of Commerce and Industry to develop and lead their networks so that worksites could participate in the trial of an integrated approach to health, safety and wellbeing. The following recommendations from the WIN evaluation are offered as advice for future WorkSafe Victoria programs that might adopt the partnership and network model used successfully in the WIN program. The recommendations reflect positive features and learnings of the WIN evaluation that could add value to future programs. While the majority of the recommendations would be applicable to a wide range of programs, some of the recommendations are focused on integrated approaches.

1.3.1. To facilitate program implementation:

- 1) Comprehensive training on integrated approaches should be provided to network chairs and key individuals participating in the program prior to the start of the program.
- 2) Consideration should be given to the likelihood that an integrated approaches model will be implemented alongside existing systems within participating worksites which may result in conflicting demands for the IA champion. For example, worksites should be provided with some flexibility with respect to the timing of program implementation, which would give them an opportunity to include it in their annual planning and budget cycle.
- 3) Learning workshops and supporting materials should be tailored to the level of organisational readiness as well as the varying skills and capabilities available at each worksite.
- 4) Network chairs should maintain frequent and ongoing engagement with worksites in order to provide tailored support and coaching to worksites.
- 5) Network chairs should encourage and assist the use of evaluation research data to inform the planning and implementation of activities at worksites.
- 6) Within worksites, IA champions should build awareness and involvement among employees with regard to the progress of the program.
- 7) For an integrated approaches program, each IA committee should represent OHS, HP and HRM, where possible.
- 8) For integrated approaches programs, tools such as PDSA cycles can be a useful mechanism to achieve small wins, but they should apply an integrated approach rather than a focus on one area such as OHS.

- 9) Ongoing collaboration should be encouraged and facilitated between worksites in each network and across networks to share learnings and build cross-industry support structures.

1.3.2. To facilitate program evaluation:

- 10) An evaluation project should be co-designed with the program so that the benefits of evaluation research, such as timely feedback to worksites during the program, can be maximised.
- 11) For an integrated approaches program, measures of an integrated approach should be refined to be able to assess the progress, impact and outcomes for worksites using this approach.
- 12) While the WIN program delivered a valuable 'real world' evaluation of an IA, future consideration should be given to the conduct of a research study with a more rigorous study design including a control group. Such a research study should aim to undertake a more comprehensive and long term evaluation of the WIN approach in terms of the health benefits for employees as well as the potential economic benefits for work organisations and the state of Victoria.

1.4. Conclusion

The WIN evaluation was a 'real world' evaluation which collected data at multiple time points from the four groups of informants. A mixed methods approach was used to collect and analyse the data before recommendations were made based on the evaluation findings. The evaluation findings highlight learnings from the process of implementing an integrated approach and the impacts observed throughout the program and at the end of the program. Due to the nature of the WIN program, several limitations have been identified; however, these limitations notwithstanding, the evaluation findings have generated some important recommendations and guidance for the future.

The WIN program was designed to trial an integrated approach to worker health, safety and wellbeing in two selected industries. The evaluation findings provide some good evidence for the feasibility and acceptability of implementing an integrated approach to improve the health, safety and wellbeing of workforces as well as some preliminary evidence of the short term benefits. However, further research using a stronger evaluation study design would help to determine the longer term benefits of the WIN approach.

Building on previous research conducted in Victoria, Australia in "early adopter" workplaces, the WIN program has shown that while using an integrated approach can have positive outcomes, strong support and leadership is required by employers and their employees to plan, implement and sustain the program.¹⁶ The evaluation findings also demonstrate that other factors for worksites' successful implementation of the WIN program were: the coaching support from network chairs; education and resourcing of IA committees in worksites; and the use of evaluation data by work organisations to understand better the workforce health, safety and wellbeing issues in their worksites.

2. Introduction to the WIN program

The WorkHealth Improvement Network (WIN) program was designed by WorkSafe Victoria to trial an *integrated approach* (IA) to employee health, safety and wellbeing. The WIN program was implemented through a strategic collaboration with the Department of Health and Human Services (DHHS) and the Victorian Chamber of Commerce and Industry each leading a network of worksites in their respective industries..

An integrated approach to employee health is defined as ‘a strategic and operational coordination of policies, programs, and practices designed to simultaneously prevent work-related injuries and illnesses and enhance overall workforce health and wellbeing.’¹⁷ In the WIN program, the IA seeks to integrate occupational health and safety (OHS), health promotion (HP) and human resource management (HRM) to improve employee health, safety and wellbeing.

The WIN program sought to trial an integrated approach to employee health, safety and wellbeing to improve safety culture; enhance mental wellbeing; and reduce musculoskeletal disorders.

The WIN program sought to trial an integrated approach to employee health, safety and wellbeing to improve safety culture, enhance mental wellbeing and reduce musculoskeletal disorders.

Network chairs were contracted to lead the networks with the Department of Health and Human Services (DHHS) leading the public hospitals network and the Victorian Chamber of Commerce and Industry leading the manufacturing network. Network chairs received two full days of training on collaborative methodology together with an orientation and training package developed and delivered by the Improvement Foundation.

The network chairs led a Design Expert Group workshop prior to the commencement of the program to build understanding about the design and implementation of the WIN program. The network chairs were then responsible for recruiting and orientating worksites into the program. Throughout the program their role was to support worksite progress by facilitating learning workshops so that worksites could come together and learn from each other about their participation in the program and to provide ongoing coaching while worksites implemented their activities. Network chairs also had a key role in advocacy and sharing learnings with their relevant industry.

The WIN program was implemented across three waves of action from April 2015 to July 2016. Prior to the start of each wave the network chair recruited worksites into the network. The aim of each network chair was to recruit 3 worksites into the first wave and to recruit 6 worksites in each successive wave resulting in a total of 15 worksites by wave 3 for each network.

- ▶ Wave 1 action period from April 2015 to July 2015 recruiting the first 3 worksites.
- ▶ Wave 2 action period from June 2015 to January 2016 recruiting the next 6 worksites.
- ▶ Wave 3 action period from January 2016 to July 2016 recruiting the final 6 worksites.

The public hospitals network recruited an additional worksite in wave 3 so the total number of worksites was 31 in wave 3. For three worksites, withdrawal from the program was due to increased work demands and they did not have adequate resources available to participate in the program. One worksite closed during the delivery of the WIN program.

2.1. Implementation of WIN activities

Each worksite entered the program with their own organisational priorities and goals. At the start of each wave the worksites participated in a worksite orientation session facilitated by the network chair before commencing their WIN activities. Worksite WIN activities were developed by drawing from theories of change, in particular, the 'Model for Improvement' developed by the Institute for Healthcare Improvement¹⁸ and the PDSA cycles.

Each worksite developed change ideas (WIN activities) to address at least one of the three focal areas of health, safety and wellbeing in their worksite over the period of the WIN Program. The process of the PDSA cycles across the three waves is displayed in Figure 1 below which shows that the aim of these PDSA cycles is to take learning from one wave into the next wave as a process of ongoing improvement. The worksites were required to conduct a minimum of three PDSA cycles in each wave. For more detail about the WIN Program, refer to the *Collaborative Handbook for Participating Worksites*.⁴

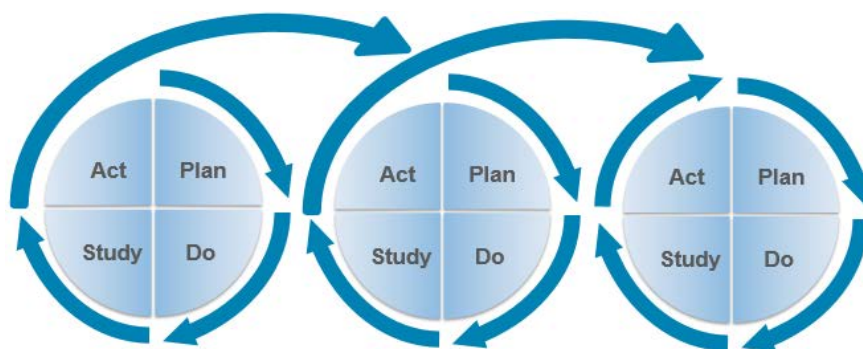


Figure 1: Plan-Do-Study-Act (PDSA) cycles

Participating worksites were asked to set up an IA committee of employees with representation from occupational health and safety, health promotion, and human resource management. Each worksite nominated an IA champion to lead the IA committee. The IA committee usually comprised an OHS manager, health and wellbeing coordinator and an HR representative. In some smaller worksites the IA champion served all roles.

During each action period worksites implemented WIN activities as a series of PDSA cycles where each PDSA cycle was focused on one of the three topic areas: safety culture, mental wellbeing and musculoskeletal disorders. Examples of PDSA activities might include developing or making changes to an existing policy, planning a workplace initiative or program, delivering training, or conducting focus groups with employees using an integrated approach. IA champions recorded key details about the PDSA cycles that were implemented in their worksite using reporting forms. The IA champions were supported by the network chairs throughout this process.

2.2. The evaluation of the WIN program

A research team from Monash University and The University of Melbourne were commissioned to independently evaluate the WIN program. The evaluation ran concurrently with the WIN program so that key findings could be provided as feedback to worksites. This report presents the final results of the WIN evaluation that assesses the process and impact of the WIN program by addressing the following areas:

- ▶ the implementation of an integrated approach including barriers, facilitators and lessons learnt;
- ▶ changes at worksites from baseline to follow-up;
- ▶ an economic analysis; and
- ▶ the sustainability of an integrated approach.

We undertook process evaluation to determine the effectiveness of the implementation of the WIN program, and the barriers and facilitators to effective implementation which can impact program success. Additionally, we conducted interviews and surveys with worksites along to measure the impact of the program on improving safety culture, enhancing mental wellbeing and reducing musculoskeletal disorders. This was complemented by a preliminary economic analysis. The relationship between the WIN program and the WIN evaluation is shown in Figure 2 below.

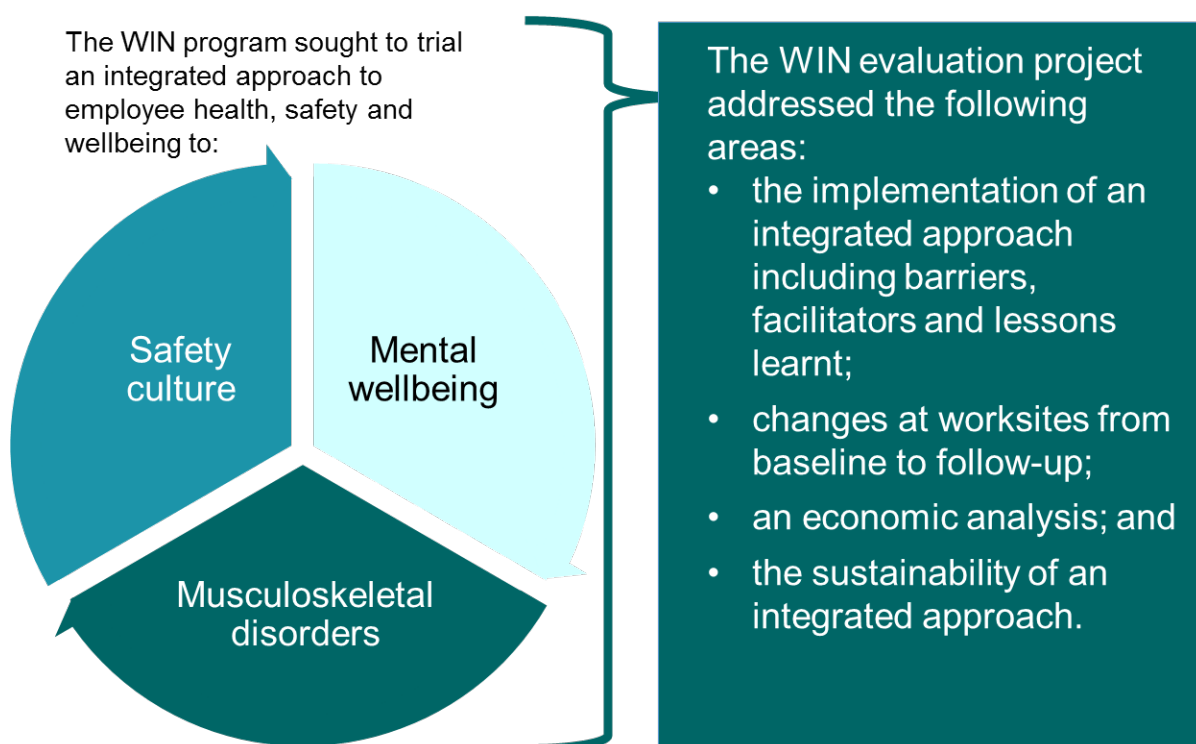


Figure 2: WIN program evaluation

The WIN evaluation was designed to address these four areas by using a mixed methods approach to data collection and analysis. The evaluation team provided regular reports and presentations to WorkSafe Victoria, network chairs and the worksites throughout the WIN program.

3. Evaluation methods

3.1. Participants

The WIN program involved four groups: WorkSafe Victoria; the manufacturing and public hospitals network chairs; worksite representatives; and worksite employees.

For the WIN evaluation, data were collected from the following participants in each group:

- ▶ WorkSafe Victoria: WorkHealth Team and the WorkHealth Steering Committee.
- ▶ Networks: network chairs represented the manufacturing network (Victorian Chamber representative) and the public hospitals network (DHHS representative).
- ▶ Worksites: each worksite participating in the WIN program was represented by an IA champion (one per worksite) and an IA committee where possible.
- ▶ Employees: employees at the worksites were invited to participate in the WIN evaluation research project.

Participation in the WIN evaluation was voluntary. The WIN evaluation was approved by the Monash University Human Research Ethics Committee (Project CF15/330 – 2015000159).

3.2. Measures

Evaluation data were collected at multiple time points from the four groups of informants. A mixed methods approach was used to collect and analyse PDSA reporting forms, worksite audits, interviews and focus groups, employee surveys, and compensation claims and costs. Table 3 below summarises the types of data collected from each source and the method of data collection.

Table 3: Summary of evaluation data collected

Source	Methods	Data
WorkSafe Victoria	Interviews/focus groups	Overview of WIN program Worksite participation Network development and progress Factors influencing network capacity Network sustainability and outcomes
	Secondary data	Compensation claims data Contractual payments to network chair organisations Direct payments to worksites
Network chairs	Interviews	Worksite participation Network development and progress Factors influencing network capacity Network sustainability and outcomes
Worksite representatives	PDSA reporting forms	Aims & objectives for each PDSA cycle Description of each component: plan, do, study and act
	Audits	Worksite and workforce characteristics Policies, programs and training Resourcing of activities Indicators of integration tool OHS and human resource outcomes (e.g., reported incidents)
Employees	Interviews/focus groups	Support provided by the network chair Planning and implementation of activities Employee participation in activities
	Surveys	Safety culture Mental wellbeing Musculoskeletal disorder OHS outcomes (e.g., self-reported OHS incidents)
	Focus groups	Participation in WIN program and WIN activities

3.3. Evaluation procedure

Figure 3 below shows the overall procedure used to evaluate the WIN program in the two industry networks.

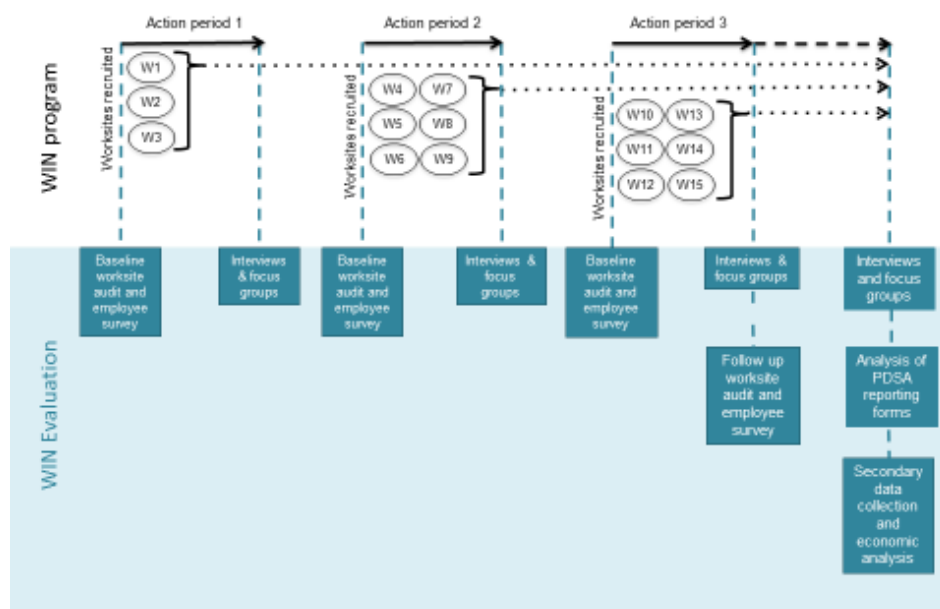


Figure 3: WIN program evaluation procedure in each network

3.3.1. PDSA reporting forms

Worksites were asked to conduct at least three PDSA cycles (activities) for each action period. The network chairs provided the IA champions with a reporting form to record this information throughout each of the three action periods. IA champions completed a reporting form for each PDSA cycle they undertook. The research team collected and analysed the PDSA reporting forms from each worksite. This analysis includes 150 PDSA reporting forms (116 from public hospitals and 34 from manufacturing worksites). These forms were used to identify the selected topic area, aim and objectives of the PDSA cycle and the types of WIN activities that had been undertaken at each worksite.

3.3.2. Worksite audits

The IA champions for each worksite were asked to complete a worksite audit that was administered at baseline and at the end of the program. The worksite audit sought responses to items in four areas:

- ▶ worksite and workforce characteristics (e.g., number of full-time employees, gender distribution, age distribution, job roles);
- ▶ types of facilities, policies, programs and training that are available at each worksite;
- ▶ the Indicators of Integration tool;^{17, 19} and
- ▶ OHS and human resource data (e.g., sick leave, lost time injuries, staff turnover, claims) to be used in the economic analysis.

After completing basic data on worksite and workforce characteristics, IA champions were asked to respond to a series of questions regarding the types of facilities, policies, programs and training they offered to support health, safety and wellbeing at their worksite. Each worksite was asked to provide information on:

- ▶ facilities (e.g., bike racks, showers, gym, food preparation facilities);
- ▶ policies (e.g., policies for health and wellbeing, safety culture, flexible work);
- ▶ programs (e.g., health assessments, walking groups, employee assistance programs); and
- ▶ training (e.g., OHS, first aid, mental health first aid, workplace bullying).

IA champions were asked to report on how they supported and resourced their health, safety and wellbeing activities. Questions addressed issues such as:

- ▶ cost of activities; and
- ▶ clear roles and accountability.

The worksite audits included an Indicators of Integration Tool as the main tool to assess the worksites' adoption of an integrated approach. This tool is comprised of 23 items that are rated on a three-point scale (0 absent, 1 partially adopted, 2 fully achieved). Scores on the integration tool are calculated by summing participant responses to the 23 indicators to create a total score that ranges from zero to 46 which was then converted to a percentage of the total possible score. A higher score on this tool indicates a higher level of integration at

the worksite. The Indicators of Integration Tool can be used to assist in the identification of areas for improvement for worksites participating in the WIN program.

In the final section of the audit, IA champions were asked to provide data on OHS and human resource outcomes. These data were used in the economic analysis. This information was collected in quarterly time periods from the three months prior to beginning the WIN program (baseline) to the three months following their completion of the program (follow-up). IA champions were asked to provide data for:

- ▶ lost-time and medical treatment injuries (e.g., hours worked, lost time injuries, medical treatment injuries);
- ▶ OHS incidents (e.g., reported incidents, near misses);
- ▶ employee leave days (e.g., sick leave, carers leave); and
- ▶ claims (e.g., number of claims, incapacity days, days of compensation paid).

3.3.3. Interviews & focus groups

Interviews and focus groups were held at the end of each action period and six months after the program (post-program follow-up). The first set of interviews or focus groups were conducted with:

- ▶ WorkHealth team members;
- ▶ WorkHealth steering committee members; and
- ▶ Network chairs.

Key themes that were explored in these interviews and focus groups included: network development and progress, worksite participation, factors influencing network capacity, and network sustainability and outcomes.

A second set of interviews or focus groups were conducted in worksites with the:

- ▶ IA champion;
- ▶ IA committee members (where applicable); and
- ▶ employees in each worksite.

These discussions explored factors influencing the planning and implementation of activities, worker participation in the activities, and the support provided by the network chair staff. For the 6-month post-program evaluation, focus groups with worksite representatives (IA champions and committee members) explored the sustainability of WIN activities.

3.3.4. Employee survey

Employees at each worksite that participated in the WIN program were invited to complete a survey at baseline prior to the beginning of WIN activities and at the end of the program following the completion of WIN activities. The survey was conducted and reported to provide each worksite with a snapshot of their employees' perceptions of their health, safety and wellbeing at the beginning and the end of their participation in the WIN program.

The measures in the survey addressed all three focal areas of the WIN program: safety culture, mental wellbeing and musculoskeletal disorders. The survey also captured data on

psychosocial safety as well as OHS, health and work outcomes and demographic data. The areas measured in the survey are listed below.

- ▶ Demographics: gender, age, education, workplace tenure, job role and type of shift.
- ▶ Safety culture: OHS leading indicators (measured by the 8-item Organizational Performance Metric - Monash University [OPM-MU]),²⁰ safety motivation, safety compliance, safety participation and safety at work.
- ▶ Psychosocial safety: job demands, job control, manager support, peer support, relationships, role clarity and workplace change.²¹
- ▶ Health and mental wellbeing: mental health, physical health, physical demands and ergonomic issues, stress at work and mindfulness. For example, measures of mental and physical health included the SF-12,²² which asks employees to rate their own health on a set of 12 items.
- ▶ Musculoskeletal disorders: experience of musculoskeletal disorders, location of musculoskeletal disorders and discomfort associated with musculoskeletal disorders.
- ▶ OHS and work outcomes: OHS incidents (reported incidents, unreported incidents, near misses), reported hazards, visits to health professionals, absenteeism, presenteeism, job satisfaction and intention to leave.

The employee survey was designed to meet the widely recognised standards of a 'tailored design method'²³ and used established measures to collect information to address the focal areas of the WIN program. The survey was administered either online or using pencil and paper surveys depending on the needs of the worksite.

Following completion of the baseline survey at the end of each wave, the research team prepared written reports for each network that compared the participating worksites on all measures in the survey. The baseline reports offered an overview of employees and worksites within each network with respect to worksite safety culture, mental wellbeing and musculoskeletal disorders prior to their involvement in the WIN program.

This reporting process was a resource for worksites and the network chairs, and the results were available to be used as a general guide to help worksites identify and prioritise areas in need of improvement. To protect confidentiality, no worksite or individual was identified in any of the reports. However, IA champions were told which worksite was theirs and could have identified themselves to the network chair or to other worksites in the WIN program. The reports could be used to assist discussion between the worksite and the network chair for decision making around the planning and implementation of activities throughout the WIN program.

At the completion of WIN activities, employees were again invited to respond to a follow-up survey and a report was prepared for each network. These follow-up reports offered an overview of employees and worksites with respect to worksite safety culture, mental wellbeing and musculoskeletal issues prior to and after their involvement in the WIN program. With the addition of the follow-up survey results, worksites were able to assess changes in employee ratings of their health, safety and mental wellbeing in light of their focal areas and the WIN activities. This enabled each worksite to evaluate their progress across the three core areas of the WIN program.

3.3.5. *Economic analysis*

The economic analysis followed a pre- and post-study design. The baseline period was defined as the three-month period prior to the commencement of the WIN program for each worksite, and follow-up was defined as the three month period following the conclusion of the WIN program.

The economic analysis utilised data from two sources: the worksite representatives via worksite audits and WorkSafe Victoria.

The economic analysis examined four areas:

- ▶ reported incidents, near misses and hazards at the worksite level;
- ▶ value of lost productivity based on claims data at worksite level;
- ▶ changes in claims at workplace and worksite levels as an indication of potential effect of WIN; and
- ▶ costs of running the WIN program.

The first source of data for the economic analysis was the worksite audits, which were completed by IA champions to report on worksite level data about a range of outcomes at each worksite at baseline and follow-up. The collection of baseline data was staggered across three stages that depended on when the worksites were recruited into the WIN program. The follow-up data were collected at the completion of the WIN program.

- ▶ Baseline for worksites recruited in wave 1: 1 January 2015 to 31 March 2015.
- ▶ Baseline for worksites recruited in wave 2: 1 April 2015 to 30 June 2015.
- ▶ Baseline for worksites recruited in wave 3: 1 October 2015 to 31 December 2015.
- ▶ Follow-up for all worksites: 1 August 2016 to 31 October 2016.

The key outcomes measured in the worksite audits were in three areas, namely: reported workplace incidents; compensation claims submitted to and approved by WorkSafe Victoria; and lost productivity due to injury or illness. The specific measures are shown below.

Several measures were used to collect data about workplace incidents.

- ▶ Reported workplace incidents: these include injuries, conditions and diseases sustained in the worksite that were reported to management. Note that reported incidents are injuries that involve employees alone and did not include clients, customers or patients.
- ▶ Lost-time injuries: injuries or illnesses that resulted in workers taking one or more days off work.
- ▶ Medical treatment injuries: injuries or illnesses that do not require time off work but where medical treatment was administered (excluding first aid treatment), as well as less severe injuries that do not require medical treatment or time off work.
- ▶ Reported near misses: incidents which did not result in injury or disease but had the potential to do so; and
- ▶ Reported hazards: any situation or circumstance which could cause or contribute to major incidents at work.

Worksite audits were also used to collect data on total lost productivity days due to injury or illness and includes:

- ▶ total sick leave days (paid and unpaid); and
- ▶ total compensation days over baseline and follow-up periods.

Lost productivity days due to injury or illness are based on self-reported data from each workgroup. These include total sick leave days (whether paid or unpaid) and total compensation days over baseline and follow-up periods. Lost productivity days are valued according to occupation-averaged wages reported by the Australian Bureau of Statistics,²⁴ based on the occupation breakdown for each worksite (collected in worksite audits). Sick leave days and complete incapacity compensation days are valued at 100% of the daily average wage for workers in each workgroup. As we do not know the degree of incapacity for workers who were deemed partially incapacitated to work, we have assumed a productivity of 50% of their full capability for these days.

The compensation claims outcomes that were collected via worksite audits primarily include claims at the worksite level that were approved by WorkSafe Victoria during the baseline and follow-up periods. There can be considerable delays in WorkSafe Victoria claims approval process so claims submitted during baseline and follow-up periods (but not yet approved) were also included. The claims analysis was based on the:

- ▶ reported number of days of compensation paid for lost-time injuries or illness during baseline and follow-up; and
- ▶ compensation days paid which are
 - partial incapacity days, that is, the number of days for which a worker is certified to work reduced hours and/or duties as a result of a workplace related injury or illness; and
 - complete incapacity days, that is, the days for which a worker was certified as completely incapacitated to work.

The final source of data for the economic analysis was via the network chairs, who facilitated the collection of compensation claims data from WorkSafe Victoria or the workplace and industry level. It should be noted that some of the worksites participating in the WIN program were selected groups (or a department) within a larger workplace. WorkSafe Victoria hold data at the broader workplace level but did not have worksite level data where the worksite is only a subset of a larger workplace. Given that the number of employees at the worksite level was, in most cases, a fraction of that at the workplace level the workplace level data was only used to gain insights into the types of claims approved at each worksite. Specifically, we examine the injury type for each of the claims as well as the mechanism types through which the associated injuries of approved claims were sustained.

The workplace compensation claims data obtained from WorkSafe Victoria included micro-level information on all claims lodged from 1 March 2014 to 31 October 2016. For each claim approved WorkSafe Victoria provided data that included the:

- ▶ date of the claim;
- ▶ injury type; and
- ▶ mechanism through the injury was sustained.

Injury types are grouped into the following broad areas:

- fractures;
- musculoskeletal;
- traumatic joint or ligament and muscle or tendon injury;
- wounds, lacerations and amputations;
- mental disorders;
- injury and poisoning; and
- balance.

Mechanism types are classified according to the following categories:

- body stressing;
- slips, trips and falls;
- hitting an object;
- being hit by a moving object;
- mental stress factors;
- sound and pressure;
- heat, radiation and electricity;
- chemicals and substances;
- biological; and
- other.

WorkSafe Victoria also provided information about costs associated with the WIN program. WIN program costs are defined as the direct monetary costs of delivering the program for WorkSafe Victoria. Specific costs include:

- payments to worksites participating in the WIN program;
- contractual payments to the network chairs to fund staffing costs and the learning workshops.

In the economic analysis, for each outcome measured in the worksite audits, we consider only worksites that provided information on the relevant measure at both baseline and follow-up. All costs and outcomes are presented per 1,000 full-time equivalent (FTE) employee over the respective reporting periods. All dollar amounts are in Australian dollars. In the case that adequate information regarding numbers of FTE employees was not provided at baseline and follow-up, observations were removed from the analysis. All outcomes are presented graphically according to industry type (i.e. hospitals and manufacturing) per period.

4. Evaluation findings

The WIN program sought to trial an integrated approach to employee health, safety and wellbeing to improve safety culture, enhance mental wellbeing and reduce musculoskeletal disorders. Firstly, the participants in the WIN evaluation are described; secondly, the results for the WIN evaluation are discussed to evaluate the process and impact of the WIN program by addressing the following areas:

- ▶ the implementation of an integrated approach, including barriers, facilitators and lessons learnt;
- ▶ changes at worksites from baseline to follow-up;
- ▶ an economic analysis; and
- ▶ the sustainability of an integrated approach.

4.1. Participants

Worksites in the public hospitals network included a range of worksite types, such as emergency departments, intensive care, aged care, environmental services, and community support services. Worksite types in the manufacturing network were varied, including food, textiles, timber and high-technology products.

Table 4 below displays a summary of the WIN data collection methods and the number of participants in each group. The evaluation methods included collection and analysis of:

- ▶ 150 PDSA reporting forms;
- ▶ 25 worksite audits completed by the IA champion at worksites at baseline and follow-up;
- ▶ 25 interviews and 51 focus groups;
- ▶ employee surveys completed by 2,064 employees at baseline and 1,005 employees at follow-up; and
- ▶ compensation claims data and costs related to the WIN program.

Multiple methods were used by the research team to encourage engagement by participants in all four groups in the evaluation. However, there were some gaps in the data collected, as is to be expected with evaluation of this kind of 'real world' program implementation. There were also some important differences between the networks; for example, the research team were able to access 116 PDSA reporting forms from the public hospitals network but only 34 PDSA forms from manufacturing worksites. However, it should be noted that the response rates for the employee survey at baseline (52% response rate) and at follow-up (32% response rate) are comparable to similar evaluation studies that require data collection over multiple time-points.

Table 4: Summary of participants and methods of data collection

Activity	Participants
PDSA reporting forms	150 PDSA reporting forms completed by IA champions were accessed by the research team for the evaluation: 116 from public hospital worksites and 34 from manufacturing worksites.
Worksite audits	Baseline audits were completed by IA champions for manufacturing ($n = 15$) and public hospitals ($n = 16$) worksites Follow-up audits were completed by IA champions for manufacturing ($n = 10$) and public hospitals ($n = 15$) worksites
Interviews and focus groups	3 focus groups were conducted at WorkSafe Victoria 4 interviews were held at WorkSafe Victoria 12 interviews were held with network chairs 28 focus groups were conducted with IA committees 9 interviews were conducted with IA champions 20 focus groups were conducted with worksite employees
Employee surveys	The baseline survey was completed by 1,072 employees from 15 worksites in the manufacturing network (52% response rate) and 991 employees from 15 worksites in the public hospital network (47% response rate). The follow-up survey was completed by 542 employees from 10 worksites in the manufacturing network (52% response rate) and 463 employees from 15 worksites in the public hospital network (22% response rate).
Economic analysis	The number of worksites in the public hospitals network that had complete data for the economic analysis ranged from 5 to 7 across the set of variables analysed. The average number of FTE employees was 72.5 at baseline and 75.5 at follow-up. The number of worksites in the manufacturing network that had complete data for the economic analysis ranged from 7 to 9 across the set of variables analysed. The average number of FTE employees was 267.3 at baseline and 238.1 at follow-up.

Table 5 below summarises basic demographic data for the employees participating in the WIN program across networks. Employees in the public hospitals network tended to be female, hold post-secondary qualifications and work on a part-time basis. Employees in the manufacturing network tended to be male and work full-time. Compared to employees in the public hospitals network, fewer employees in the manufacturing network held a post-secondary qualification.

Table 5: Characteristics of employees who responded to surveys

	Public hospitals Baseline survey Employees (n = 991)	Public hospitals Follow-up survey Employees (n = 463)	Manufacturing Baseline survey Employees (n = 1,072)	Manufacturing Follow-up survey Employees (n = 542)
Gender	66% female	80% female	19% female	27% female
Age	37% aged from 36 to 55 years	41% aged from 36 to 55 years	49% aged from 36 to 55 years	54% aged from 36 to 55 years
Education	65% have a post- secondary qualification	75% have a post- secondary qualification	49% have a post- secondary qualification	45% have a post- secondary qualification
Employee status	29% full-time	32% full-time	78% full-time	79% full-time
Role	50% work in nursing role	45% work in nursing role	26% work in production role	24% work in production role

4.2. Implementation of an IA

The first area of the evaluation presented in this report examines how and to what extent the IA champions implemented an IA to worker health, safety and wellbeing at their worksites. Initially, we examine this by looking at the focus of the WIN activities implemented in PDSA cycles, worksite incentives to encourage employee participation in WIN activities and the extent to which employees participate in the WIN activities offered by the worksites. We then use findings from the interviews and focus groups to examine the barriers and facilitators to integration as well as lessons learnt from the implementation of the WIN program.

4.2.1. Implementation

The PDSA reporting forms showed that worksites' WIN activities could be classified into five activity types. Examples of WIN activities conducted in the public hospital worksites were:

- ▶ Focus groups: using focus groups to develop a peer support process (to improve safety culture).
- ▶ Policy: the development of a policy to assist staff in identifying support structures that would allow them to more readily report safety issues (to improve safety culture).
- ▶ Procedures: trialing anti-fatigue floor-mats to reduce pain and discomfort in the lower limbs for staff who are required to stand for long periods of time (to reduce musculoskeletal disorders).

- Programs: wellbeing workshops were developed and run to reduce stress and improve staff resilience (to improve mental wellbeing).
- Training: providing employees with training to manage patient, visitor and client aggression (to improve safety culture).

Some examples of WIN activities conducted in the manufacturing worksites were:

- Focus groups: using focus groups to develop improvement ideas and review policies with the aim of improving relationships within and between departments (to improve safety culture).
- Policy: reviewing traffic management policies to clarify right of way for pedestrians and forklift drivers to minimise OHS incident risk (to improve safety culture).
- Procedures: changing manual handling procedures to reduce the weight of containers that staff lift in the course of their duties (to reduce musculoskeletal disorders).
- Programs: running a safety culture program to improve safety awareness and safety communications (to improve safety culture).
- Training: up-skilling management staff in the areas of leadership, resilience and emotional intelligence (to improve mental wellbeing).

Figure 4 below shows the distribution of WIN activities conducted in the public hospitals and manufacturing worksites. This figure shows that the two networks have taken very different approaches to their PDSA cycles. While worksites in the public hospitals network tended to use focus groups as the main driver in their PDSA cycles these worksites show a greater spread across most WIN activity types for their PDSA cycles, particularly procedures and training. In contrast, the worksites in the manufacturing network tended to focus mainly on procedures as the main driver of their PDSA cycles with virtually no emphasis on policies or programs. Note that two manufacturing sites participated in the first wave but withdrew from the WIN program so there are no examples of PDSA cycles for the first wave in the manufacturing network.

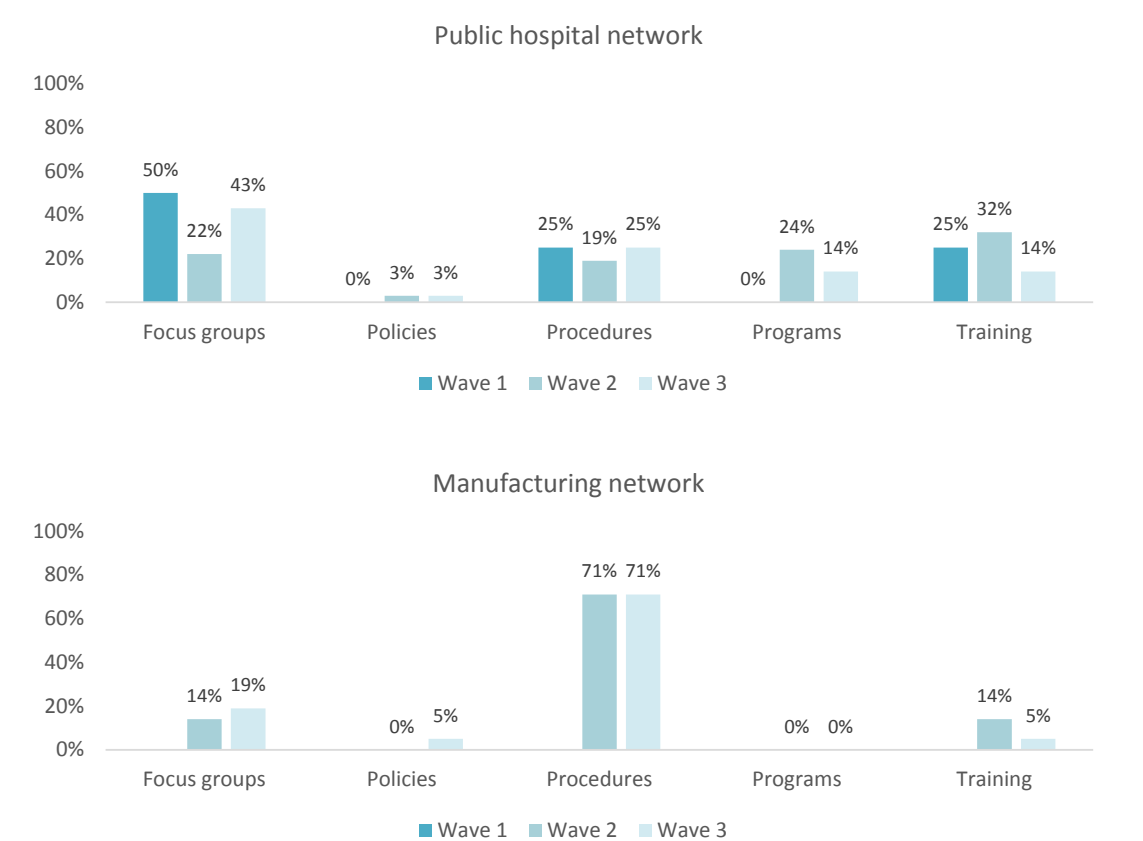


Figure 4: Type of WIN activities conducted in the WIN program

In interviews and focus groups, some worksites commented that they liked the focus on small changes achieved in PDSA cycles that allowed them to trial new approaches to health, safety and wellbeing activities in a 'safe to fail' environment.

We've had some really good wins and some epic fails. But it's all been good. So as long as - and that's the other thing that the WIN has created that environment that was safer to fail, as long as there was a takeaway and we could learn from it, perfect. – IA committee member (public hospital)

There were some difficulties with PDSA reporting forms due to time and resource constraints. In interviews and focus groups, IA committee members in most worksites indicated that the PDSA reporting forms were time consuming to complete and they did not have the resources to complete their reports.

Engagement in, I suppose, completing the PDSAs and those sorts of extra bits that are on top of our normal roles was difficult for me to tie myself down to do, because it just became - week in, week out, it was just kind of, well, that's an extra - it's going to take me an extra hour or two hours to complete that. I simply can't fit that into this week. – IA committee member (public hospital)

The worksite audits asked IA champions about whether incentives were offered to encourage employee participation in WIN activities. Figure 5 below shows that not all participating worksites chose to offer incentives to their employees. In the public hospitals network, there was a slight decrease from baseline to follow-up in the percentage of worksites offering employee incentives to participate. Conversely, worksites in the manufacturing network showed a substantial increase from baseline to follow-up in the percentage of worksites offering employee incentives to participate.

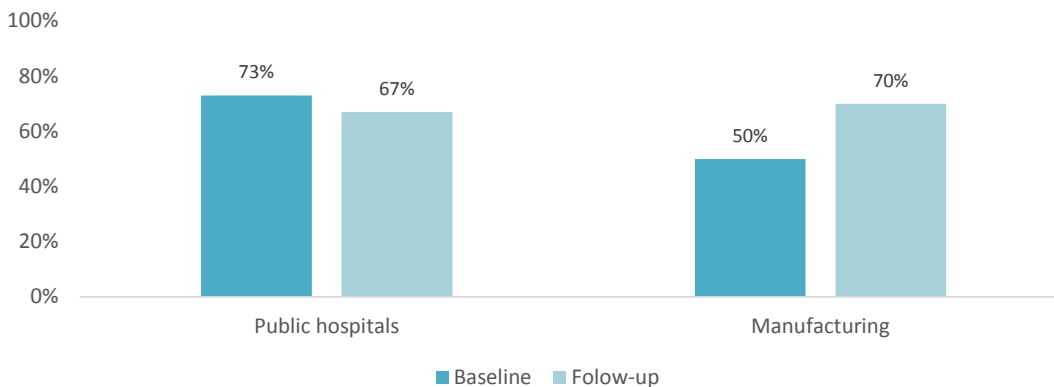


Figure 5: Worksites offering employee incentives to participate in WIN activities

The worksite audit also asked about employee participation in WIN activities. Figure 6 below shows the distribution of employee participation in WIN activities from baseline to follow-up which indicates that employee participation in WIN activities was less than 25% of the target workforce. In the public hospitals network, participation rates were generally stable but a slight increase in participation rates from baseline to follow-up can be seen. However, in the manufacturing network, employee participation rates in WIN activities generally improved from baseline to follow-up.

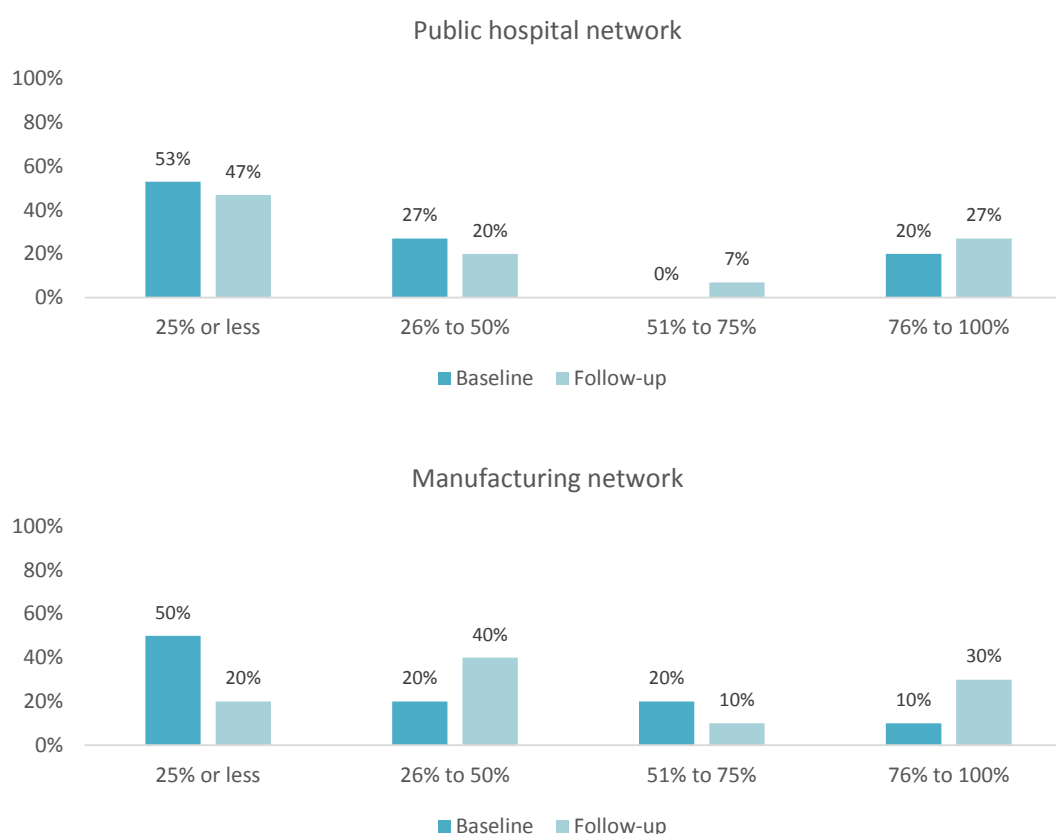


Figure 6: Percentage of employees participating in WIN activities

4.2.2. Barriers to implementation of an integrated approach

Common barriers to the implementation of an integrated approach in the WIN program included:

- ▶ lack of leadership support and commitment;
- ▶ worksite culture and resistance to change;
- ▶ time constraints of the WIN program;
- ▶ complexity of the WIN program;
- ▶ lack of funding or access to resources; and
- ▶ lack of capacity in small worksites.

Lack of leadership support and commitment. In interviews or focus groups at a few worksites, participants reported that the biggest hurdle at worksites was involving senior management and gaining senior-level commitment to an integrated approach to health, safety and wellbeing activities.

We're mindful that we need to integrate this at an organisational level. So that's where we're hitting those walls. – IA committee member (public hospital)

It needs the GM of the company to be the one that wants it to be taking place and wants to drive it otherwise it's very hard to succeed. – IA committee member

From what worksites were telling us if they didn't have that really senior leadership commitment, the data and the progress and the activities just didn't necessarily go anywhere. So even if they had their direct line manager's encouragement and support if they didn't have that integrated into the whole organisation strategy it just didn't seem to go anywhere or continue to go anywhere. – WorkHealth team member

They [could have said] what was happening next and then follow up after that or emails or anything. I didn't hear anything at all except for that email about how to manage; there was a one-off general article. That was it. – Worksite employee (public hospital)

Worksite culture and resistance to change. Another barrier related to the implementation of the WIN program was the worksite culture. Many IA committee members commented in focus groups that it was very challenging trying to change the culture of the workforce when new ways of doing things were introduced as part of the WIN program.

You've also got the barriers of 'this is the way I've always done it - why are you bringing this new stuff in'. You've got to take them through very very carefully. Explain what's going on, and all the processes of why we're doing it, and what the outcome is. – IA committee member (manufacturing)

In a few of the focus groups at worksites it was also reported that, due to organisational restraints, it can be very difficult to integrate health promotion and human resource functions with existing OHS practice.

The harder part of it on this site was that HR is two days a week ... I think that culturally health and safety is considered to be an operational issue. It's traditionally like that, and I think it continues to be the same. Getting participation from other areas is difficult. – IA committee member (manufacturing)

Time constraints. Many worksite representatives noted that the time constraints of the WIN program were difficult to meet. Some representatives noted that the WIN occurred simultaneously or just before other major changes in their worksite. Others felt that the WIN program lasted too long and that this resulted in a loss of momentum.

The timing of the project, unfortunately, probably created a couple of challenges because some of the key meetings were in our peak period and also had a couple of changes in the OHS management at site at the time which also caused a few challenges. – IA Committee member (manufacturing)

Look, it was really time demanding. I mean the need for allocation of resources, time and people who get the work done, was not insignificant. – IA committee member (public hospital)

I thought the program was too long. I thought the engagement part, initially it had a lot of momentum but the momentum shifted. – IA committee member (public hospital)

Complexity of the WIN program. Several interviewees commented that the WIN program was complex because the integrated approach was combined with the PDSA cycles. While this was seen as a burden by some others appreciated the combination.

I think having the two models, essentially, the integrated approach and then the continuous improvement, the model for improvement, just really complicated things. – WorkHealth team member

So what I liked about the WIN approach was the small PDSA approach, to break down a problem into very small parts and then try and achieve small things along the way. – IA committee member (manufacturing)

Lack of funding or access to resources. Lack of funds or access to funds was commonly reported in interviews or focus groups as a barrier, particularly in public hospitals.

You're best not to engage with what the problems are and how to deal with them unless you're going to back it up with a final solution that's paid for, and if you don't deliver then you just wipe out any kind of belief 'oh, they come in, they make us do all this stuff and nothing actually happens', or there's no funding, which is always what we hear. So the next time you come around to engage us, well, why bother? So I think the reality is, funding's critical. – IA committee member (public hospital)

The funding was very important to us, although it wasn't a massive amount of money. But it did facilitate meetings and more particularly some of the equipment and things like that. So that's quite positive. – IA committee member (public hospital)

Lack of capacity in small worksites. Interviewees at small worksites, particularly within the manufacturing network, noted that it was difficult for them to launch and maintain an integrated approach.

I think it's very hard to use the integrated approach in a small company or in a company that doesn't have clearly defined people that engage in those activities anyway. – IA committee member (manufacturing)

Well, to the extent that there's only one person who does everything on site, which is myself, so HR and HSE, wellness, welfare, all of that kind of thing is really in my responsibilities. So we didn't have to bridge any silos or do anything like that. It was more piling on even more work and expectations, into the job description. – IA committee member (manufacturing)

4.2.3. Facilitators to implementation of an integrated approach

The main facilitators for the implementation of an integrated approach in worksites were identified in interviews and focus groups as:

- the application of evaluation results;
- integrated approaches as a new way of working;
- the support of networks through learning workshops and coaching from network chairs;
- the IA champion and committee;
- PDSA cycles as 'small wins'; and
- leadership support and commitment at worksites.

The application of evaluation results. A key finding to emerge from the interviews and focus groups is that most worksites joined the WIN program because:

- the activities coincided with an existing health and safety issue; or
- they sought to utilise information derived from the evaluation to determine their status and address their safety culture, mental wellbeing and/or musculoskeletal disorders.

Many of the worksite IA committee members reported in interviews and focus groups that a drawcard of the WIN program was the access to University-conducted evaluation, which allowed them to benchmark themselves against other worksites in the network and obtain comprehensive data about their safety culture, mental wellbeing and musculoskeletal disorders.

It was also an opportunity to get a bit of baseline data to see how people felt about it firsthand and then how they might feel about it after we'd conducted an intervention. – IA committee member (public hospital)

The collection of the survey data enticed us to actually participate. It was actually seen as a fully-funded free survey. – IA committee (manufacturing)

I think being an external group [university researchers] gives it more momentum and more accountability to keep it moving. If it's an in house thing, it's sometimes easy for people to lose that momentum. – IA committee member (public hospital)

Integrated Approaches as a new way of working. The concept of integrated approaches to worker health, safety and wellbeing and how this was implemented at worksites was discussed in interviews and focus groups with IA committees. At most worksites, this new way of working was seen as one of the main benefits of participating in the WIN program.

We used to work in silos and because of the WIN program we thought we needed to get all on board - so let's get that collaborative approach to make sure that we're all on board, we're all doing the same thing. – IA committee member (public hospital)

The support of networks. The learning workshops in the WIN program gave an opportunity for the IA champions to meet each other, learn about integrated approaches, share their experiences, and receive feedback about their progress in the WIN program. These learning

workshops are a core component of collaborative methodology and were essential for worksite representatives to share learning.

So, I liked the first learning workshop I walked away from the day going, probably overall, it doesn't matter what industry you work in, we all pretty much have some similar issues. So the first workshop was good in there was that cross-pollination of ideas between different industries that you would never think would ever come together. – IA committee member (public hospital)

I was encouraged to see that we weren't on our own, that there are other groups that were looking to improve their business and we're all starting from different points but we could probably share some stuff. In those morning tea breaks, lunch breaks, the contacts I made, we were able to talk about things we had done and to share some little wins and get advice from other groups. – IA committee member (manufacturing)

Worksite representatives also benefitted from ongoing communication and coaching support from network chairs. Network chairs provided facilitation, motivation, change management strategies and expert advice to support IA committees with the planning and implementation of their activities.

I found their [network chair] service very good. They're constantly in contact either by phone, email, checking in how we're going, wanting updates, checking our progress, giving us any advice along the way. So yeah, they've been invaluable. – IA committee member (manufacturing)

The IA champion and committee. The majority of IA champions from both manufacturing and public hospital worksites were OHS managers or coordinators and very few IA champions represented HR and HP. While an integrated committee should have representation from OHS, HP and HR, often worksites did not have staff in these functional areas. This was observed in the manufacturing network with a lack of representation from HP.

Someone who's got a really close relationship with the actual staff or the group that will be going through the change process; but also someone who actually has some sort of level of authority that can have an impact to the senior leadership group; that can drive the initiative and get the initiative known within the whole organisation. – Network chair

In interviews and focus groups, worksite representatives described the development of their IA committee as an extremely helpful facilitator for their involvement in the WIN program. They reported that including different business functions of the organisation was useful, and some worksite representatives also reported that they included different levels of management and backgrounds.

I think part of the underlying tone of what was beneficial as part of this program was cross functional teams ... So we selected people from - we didn't want it to be just operations focused, even though a lot of it is operational based. We had someone from sales, someone who's a business analyst and someone who was a health and safety rep out the back. So I think we had a working team of about six or seven and it was diverse in terms of gender, age, experience and functional area. – IA committee member (manufacturing)

PDSA cycles as ‘small wins’. In interviews and focus groups, PDSA cycles were generally viewed as a facilitator to the IA in both hospitals and manufacturing worksites. However, some participants felt that the PDSA cycles and related reporting requirements were too time consuming.

I think the PDSA concept as a problem-solving tool is good. It is one tool I suppose of many types of tools. I think if it had been pitched initially as this program is all about how well you've got integration, what does that mean? But it's also about problem solving. There's a range of ways you can problem solve an issue through to resolution. – IA committee member (public hospital)

I guess that's the component that was quite time demanding though. Maybe we could have made it easier for ourselves in hindsight, but the amount of work, in terms of the planning and then the doing and the assessment and the data, did create a lot of work. As I was saying before, it was time well spent, but I guess it's something worth noting. – IA committee member (public hospital)

Leadership support and commitment. In post-program interviews, representatives at almost all worksites in both networks agreed that leadership support was an essential facilitator for the implementation and maintenance of health, safety and wellbeing activities:

Well the most important is obviously the management or leadership support because if you don't have the management support it doesn't really go anywhere. It is actually quite challenging trying to do something when your leadership group are not aware - not necessarily not aware but are not fully engaged in what you're actually doing. Whereas if they are fully engaged and fully understand the benefits for example that can be sought from an actual program like this then it makes it a lot easier. – IA committee member (manufacturing)

4.2.4. What were the key learnings from the WIN program?

Participants reported in interviews and focus groups that:

- ▶ worksites entered the WIN program with varying levels of organisational readiness and available resources, which in turn influenced their level of involvement with the program and its impacts;
- ▶ the evaluation data available to worksites in the WIN program was a valuable resource to inform the planning and implementation of health, safety and wellbeing activities at worksites;
- ▶ the WIN program was completed with tight timelines for each wave. While this was necessary, the tight timelines caused some challenges for planning and implementation of the program for both network chairs and participating worksites;
- ▶ the role of the network chair is critical to the success of a program like the WIN as a leadership function and the provision of experienced coaching to provide evidence-based advice;
- ▶ learning workshops and ongoing collaboration and networking are valuable and should be encouraged between worksites. Learning workshops are a core function of collaborative methodology and complementary to the trialing of an integrated approach in a network model; and

- ▶ resources provided to worksites, such as a change package and handbook, and requirements of participants, such as completion of PDSA reporting forms, should not be overly time-consuming for participants.

4.3. Changes at worksites from baseline to follow-up

The second area of the WIN evaluation to be presented in this report examines changes from baseline to follow-up for the participating worksites. We compare baseline and follow-up scores for each worksite on the Indicators of Integration tool and some key highlights drawn from each of the three health and safety topics covered in the survey.

4.3.1. Indicators of integration

To assess the extent to which each worksite has an integrated approach to health, safety and wellbeing, the Indicators of Integration tool was included in the worksite audit completed by IA champions in each worksite at baseline and follow-up. Figure 7 below compares integration scores for both networks overall where we can see improved integration scores, particularly for the manufacturing network.

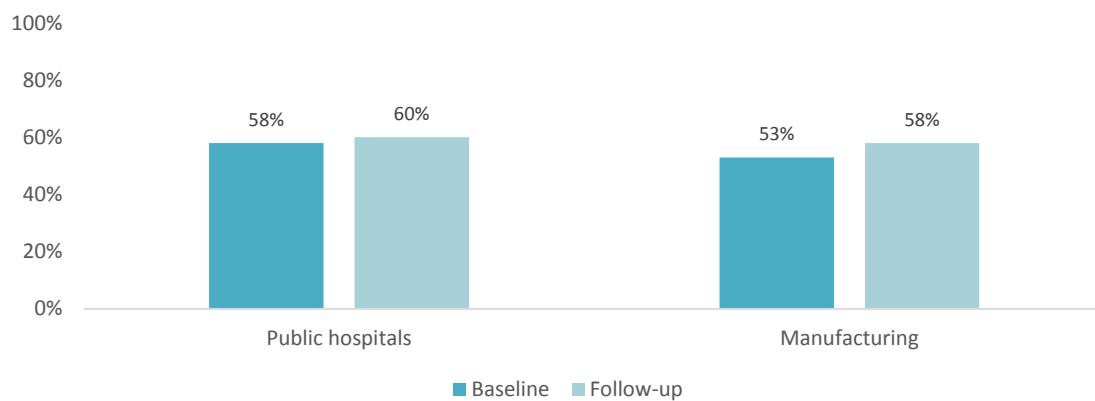


Figure 7: Comparing indicators of integration by network

Figure 8 below shows the percentage of the total possible integration score for individual worksites in the public hospitals and manufacturing networks.

A comparison of integration scores across the two networks showed that 7 of the 10 manufacturing worksites had improved integration scores at follow-up while only 8 of the 16 worksites in public hospitals had improved integration scores at follow-up.

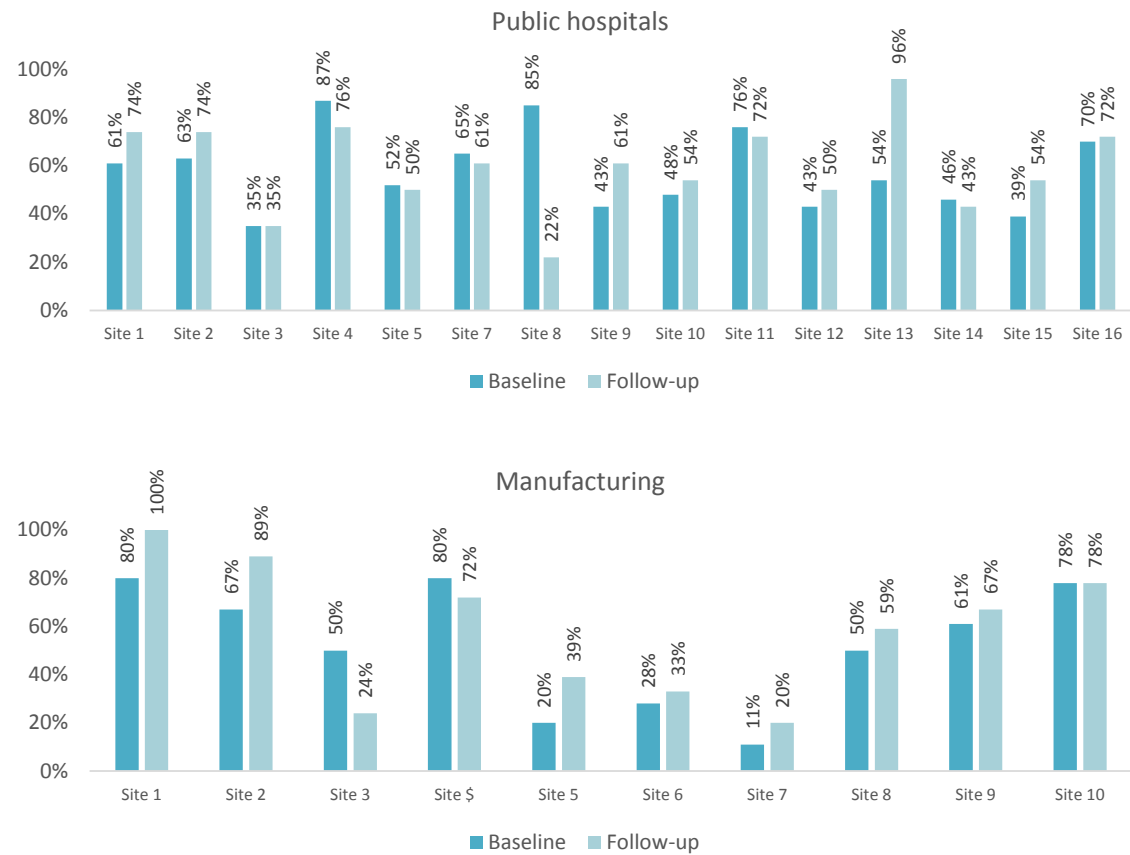


Figure 8: Indicators of integration by worksite

4.3.2. Safety culture

To assess the safety culture in each worksite, measures in the survey at baseline and follow-up included asking employees to report their perceptions of OHS leading indicators in their worksite. Total possible scores on the OPM-MU range from 8 to 40, with a higher score indicating more positive employee perceptions of OHS leading indicators in their worksite.

Figure 9 below shows employee perceptions of OHS leading indicators (as measured by the OPM-MU) in the public hospitals and manufacturing networks. There was a slight increase for average scores on the OPM-MU from baseline to follow-up for both networks. Although, employees in the manufacturing network rated their worksites higher on leading indicators of OHS compared to those in the public hospitals network.

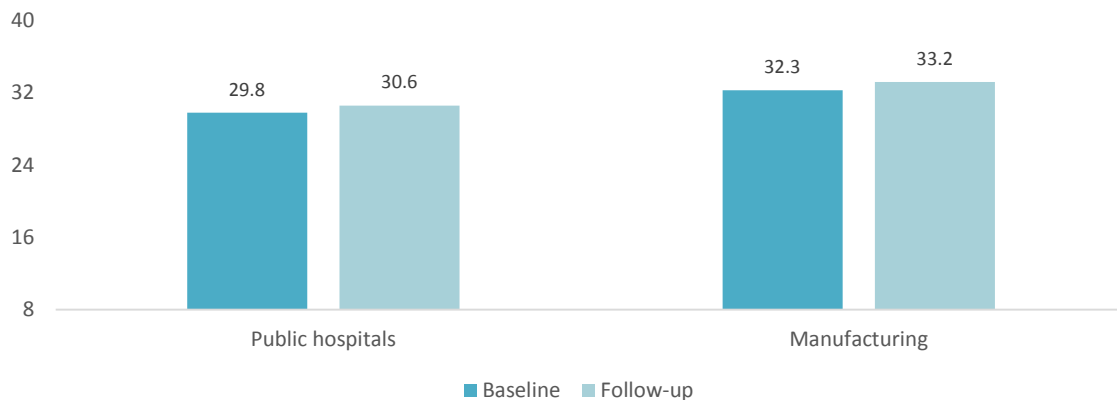


Figure 9: Leading indicators of OHS by network

Figure 10 below shows that, across individual worksites, a greater percentage of workplaces in the public hospitals network improved from baseline to follow-up compared to those in the manufacturing network.

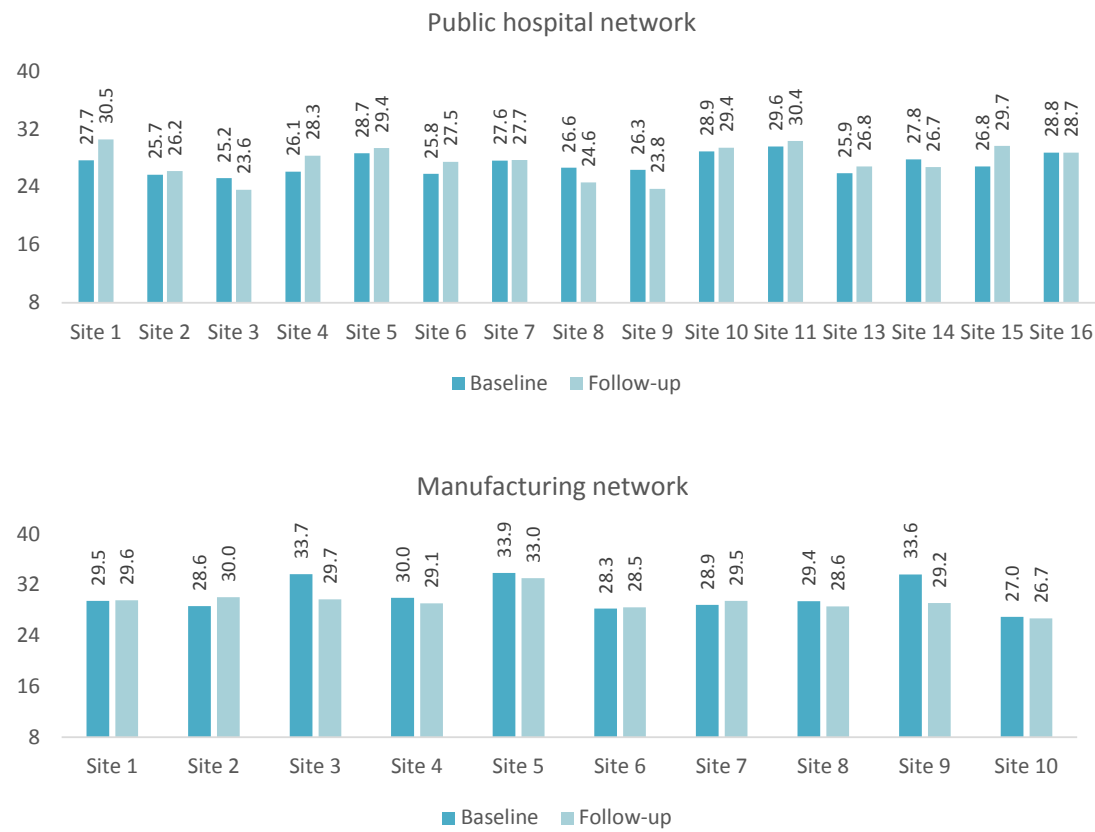


Figure 10: Leading indicators of OHS by worksite

4.3.3. Mental wellbeing

To assess the mental and physical health of employees in each worksite, the survey at baseline and follow-up asked employees to rate their own mental and physical health using the SF-12 tool with a higher score indicating better mental or physical health on average for employees in a worksite.

Prior research has reported that Australian population means scores for both mental and physical health are at 50 with a standard deviation of 10 for both the physical and mental health components.²⁵ It is recommended that group scores, such as those shown in the figures below, be interpreted such that scores within a 0.3 standard deviation of the mean (range 47 to 53) be considered to be within a normal range, while mean scores below 47 are indicative of impaired functioning.²²

Figure 11 below shows employee ratings of their mental health by network. In both networks there was a very slight increase in employee mental health ratings from baseline to follow-up with the manufacturing network showing a higher level of improvement compared to the public hospital network. Furthermore, scores for the networks overall show that employees in the public hospitals network rate their mental health below average, while employees in the manufacturing network rate their mental health within the average range.

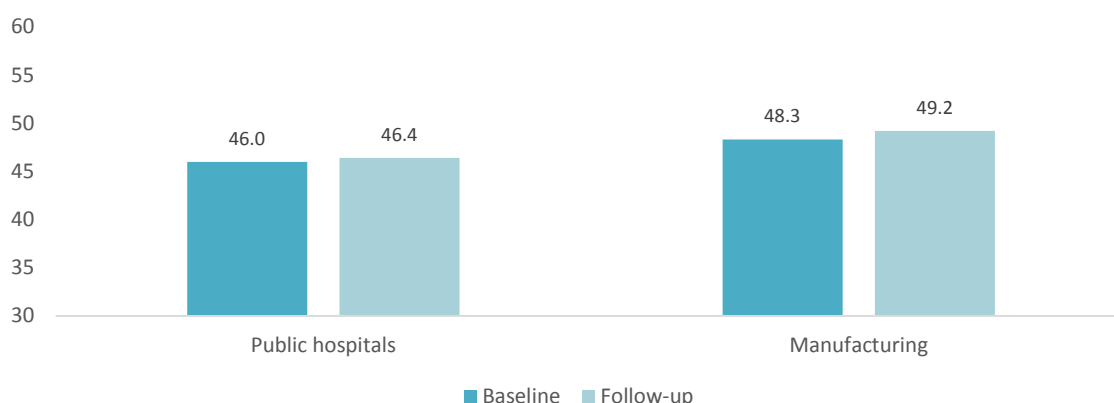


Figure 11: Employee mental health by network

Figure 12 below shows mental health scores across individual worksites. Generally, a greater percentage of workplaces in the manufacturing network reported improvements in their mental health from baseline to follow-up compared to those in the public hospitals network.

An examination the figure below shows that in four worksites in the public hospitals network, employee ratings of their mental health went from below average at baseline to within the average range at follow-up. Similarly, in two manufacturing worksites employee ratings of their mental health went from below average at baseline to within the average range at follow-up. Although, worksite scores show that there is a greater tendency for employees in the manufacturing network to rate their mental health within the normal range compared to those in the public hospitals network.

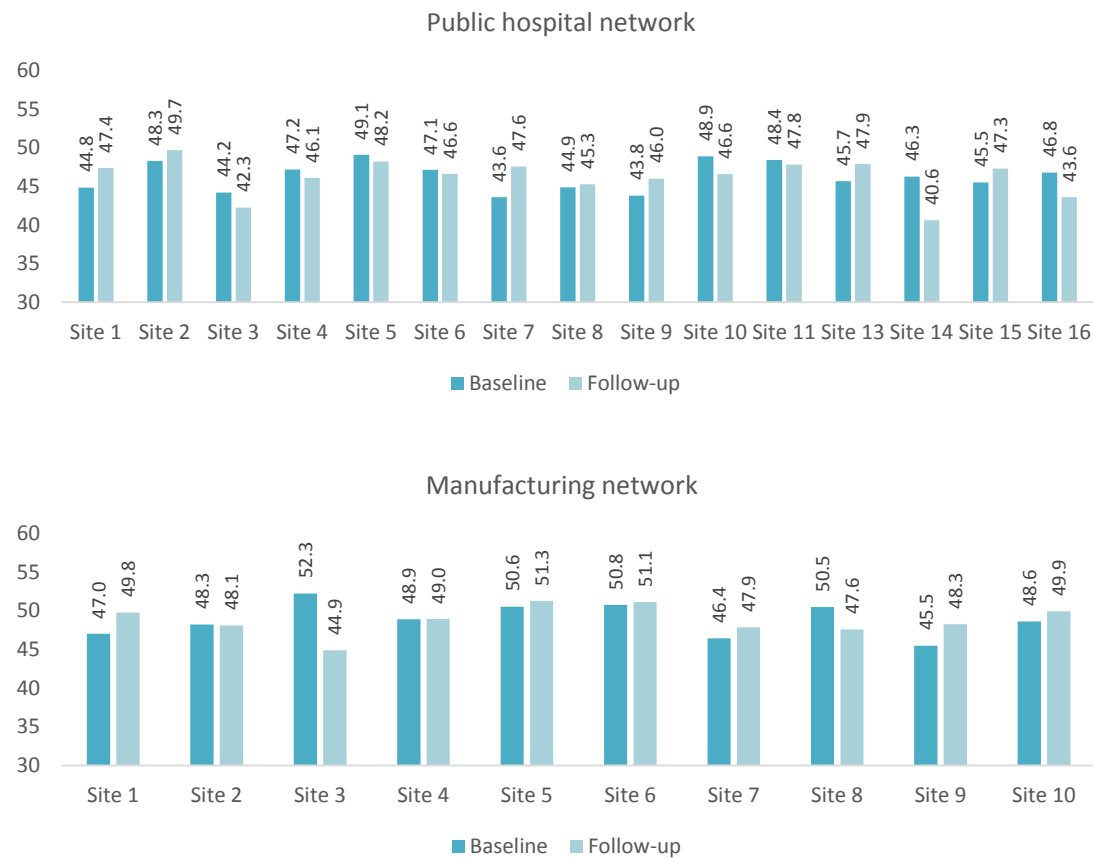


Figure 12: Employee mental health by worksite

Figure 13 below shows employee ratings of their physical health by network. In the public hospitals network there was a very slight decrease in employee physical health ratings from baseline to follow-up while the manufacturing network showed a very slight increase in employee physical health ratings from baseline to follow-up. Furthermore, scores for the networks overall show that employees in both networks rate their physical health within the average range.

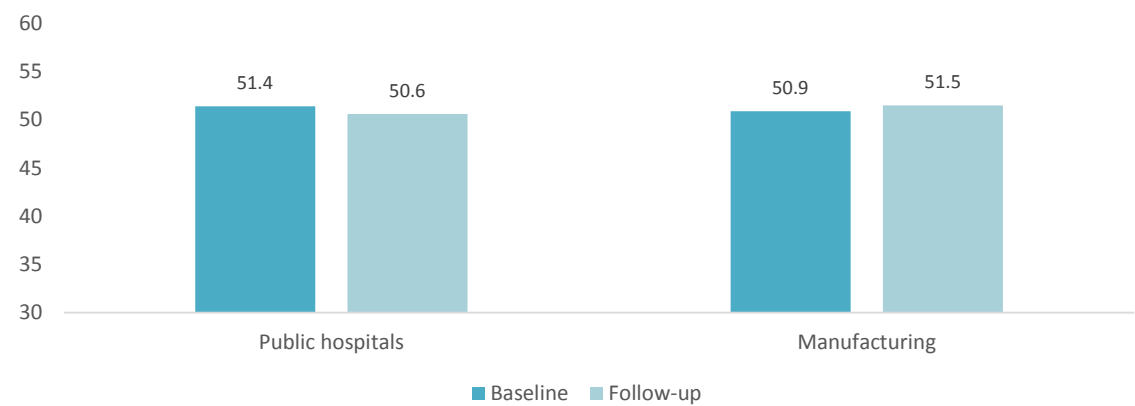


Figure 13: Employee physical health by network

Figure 14 below shows physical health scores across individual worksites. Overall, a greater percentage of worksites in the manufacturing network reported improvements in their physical health from baseline to follow-up compared to those in the public hospitals.

An examination the figure below shows that in general employees in most worksites rate their physical health within the normal range at baseline and follow-up. In the public hospitals network physical health ratings in two worksites went from average at baseline to below average range at follow-up. In the manufacturing network employee ratings of their physical health went from below average at baseline to within the average range at follow-up in two worksites and from average to below average in one worksite.

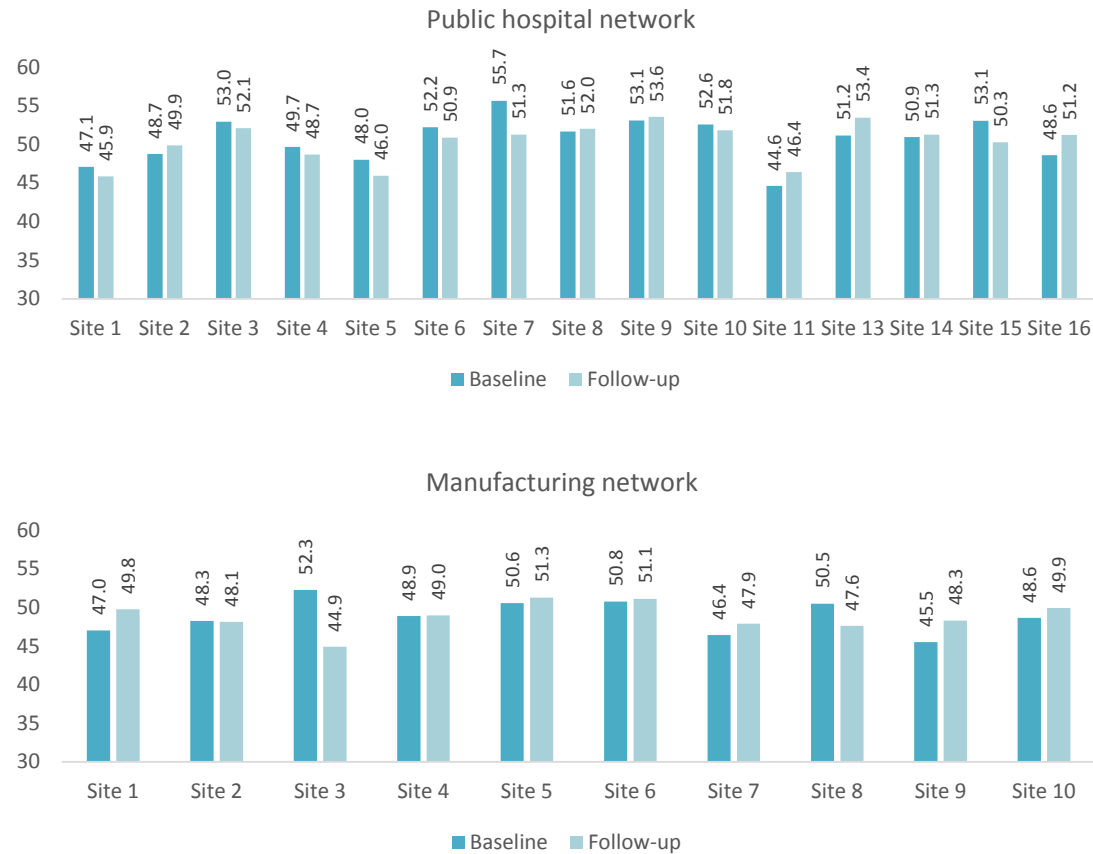


Figure 14: Employee physical health by worksite

4.3.4. Musculoskeletal disorders

Figure 15 below shows the percentage of employees by industry network who reported experiencing a musculoskeletal disorder in the previous 12 months in the public hospitals and manufacturing networks.

In the public hospital network, there was little difference in the experience of musculoskeletal disorders from baseline to follow-up. However, there was a substantial decrease in the experience of musculoskeletal disorders from baseline to follow-up in the manufacturing network. Overall, the employees in the manufacturing network experienced fewer musculoskeletal disorders compared to those in the public hospitals network.

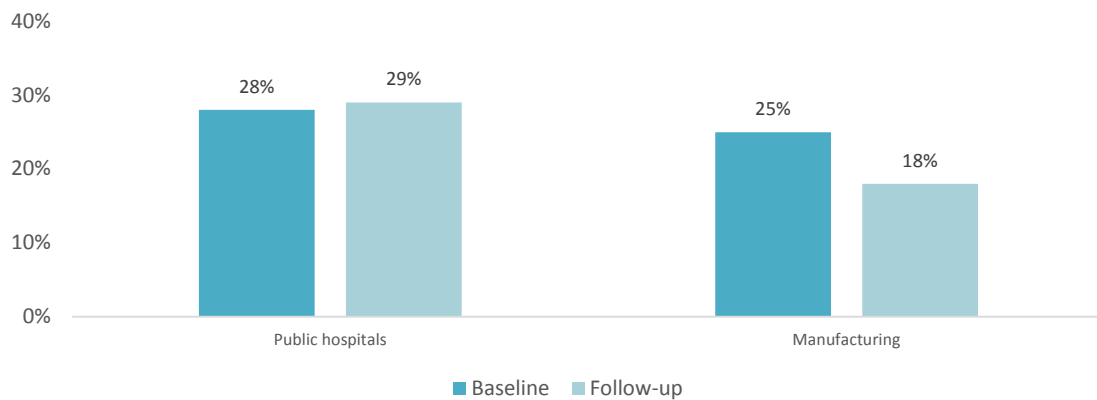


Figure 15: Musculoskeletal disorders by network

Figure 16 below shows the percentage of employees in individual worksites who reported experiencing a musculoskeletal disorder in the previous 12 months in the public hospitals and manufacturing networks. Overall, a greater percentage of worksites in the manufacturing network reported reductions in musculoskeletal disorders from baseline to follow-up compared to employees in the public hospitals network.

The figure also shows that there have been substantial decreases in the experience of musculoskeletal disorder in some public hospitals (e.g., worksites 15 and 16) and manufacturing worksites (e.g., worksites 2 and 7). However, in some worksites there has been a substantial increase in musculoskeletal disorders (e.g., worksites 3 and 11 in public hospitals and worksite 9 in manufacturing).

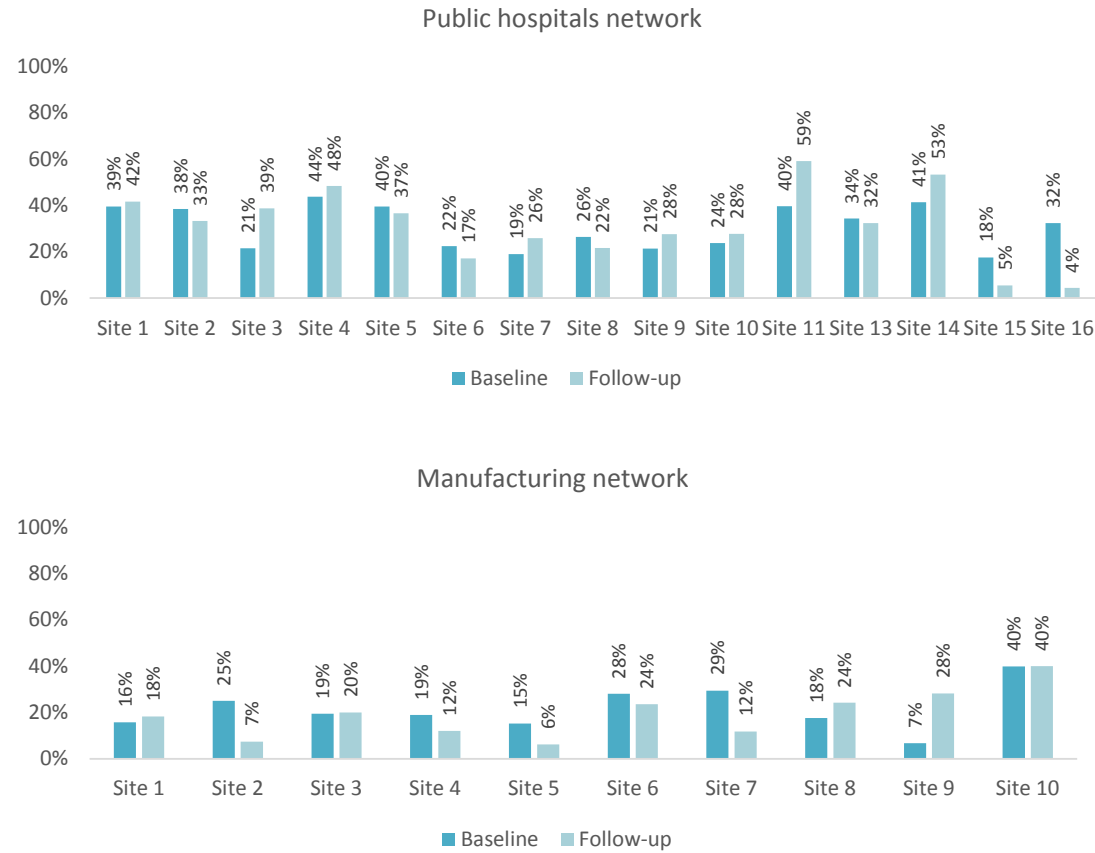


Figure 16: Musculoskeletal disorders by worksite

4.3.5. Comments about changes in the worksites

There was some evidence of an integrated approach to health, safety and wellbeing being taken.

*So I think it's been great to see the organisations realising that it's not just a health and safety person's problem, that it is the whole organisation that can make an impact and have some beneficial outputs. Not just for health and safety, but for the broader business as well. – **Network chair***

An important benefit of the WIN program, observed by both the network chairs and worksite IA committees, was the perceived success of participating in PDSA cycles. The WIN program has provided worksites with a structured way of trialling new ways of improving worker health, safety and wellbeing by making small initial changes.

*I don't think we would be so advanced, so researched, so evidence based. For me, I sort of thought that we would go more along that wellbeing pathway about what other things we can do to make things better for our staff. Whereas now we have evidence and we can benchmark ourselves against others and we have frameworks and we have education and we have roster guidelines and our staff probably know just about as much about [this issue] as what I do at the moment. – **IA committee member (public hospital)***

In interviews and focus groups, worksite IA committees identified a range of learnings and benefits with regard to the three focal areas from their participation in the WIN program.

*There's a lot more acceptance and I think there's a lot of behaviours that are being generated through the whole process. Everyone across the business to be more accepting of people that may have mental issues. It's not as low key as it used to be. It's something that's been a bit more of a change in that behaviour, and the acceptance. – **IA committee member (manufacturing)***

With regard to changes in worksites, key findings to emerge from interviews and focus groups include several benefits of the WIN program for worksites. Participants reported that:

- ▶ the WIN activities in worksites have increased communication between management and employees.
- ▶ the ongoing WIN activities implemented via PDSA cycles brought small changes ('small wins') that will have long-term positive impact.
- ▶ worksite champions should maintain ongoing WIN activities, to sustain employee morale.

4.4. Economic analysis

The economic analysis examined four areas:

- ▶ reported incidents, near misses and hazards at the worksite level;
- ▶ value of lost productivity based on claims data at worksite level;
- ▶ changes in claims at workplace and worksite levels as an indication of potential effect of WIN; and
- ▶ costs of running the WIN program.

4.4.1. Reported incidents, near misses and hazards at the worksite level

Using data collected in worksite audits completed by IA champions, Figure 17 below displays the average number of reported incidents at the worksite level that resulted in injury or illness over the baseline and follow-up periods. Overall, the average number of reported incidents declined for worksites in the public hospitals network ($n = 8$) from 274.3 per 1,000 FTE employee at baseline to 124.1 per 1,000 FTE at follow-up. For worksites in the manufacturing network ($n = 8$) average reported incidents increased from 71.7 per 1,000 FTE at baseline to 96.6 per 1,000 FTE at follow-up. Note that due to the small number of worksites included from each network we cannot determine whether these changes are statistically significant.

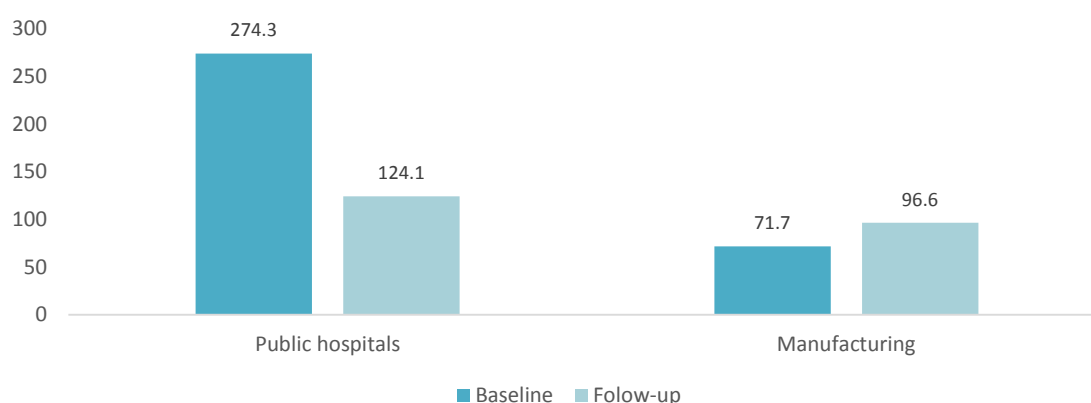


Figure 17: Reported incidents per 1000 FTE employee

As shown in Figure 18 below, lost time and medical treatment injuries at baseline and follow-up for worksites in the public hospitals and manufacturing networks were reported by IA champions in worksite audits. In the public hospitals network, the average number of lost-time injuries for worksites ($n = 7$) reduced from 10.9 per 1,000 FTE at baseline to 8.4 per 1,000 FTE at follow-up and lost-time injuries requiring workers to take at least one week off work was roughly equivalent. The average number of medical treatment injuries for worksites ($n = 9$) reduced from 23.8 per 1,000 FTE at baseline to 8.4 per 1,000 FTE at follow-up.

For worksites in the manufacturing network ($n = 9$), the average number of lost-time injuries remained largely the same at baseline and follow-up. Lost-time injuries requiring workers to take at least one week off work decreased from 3.3 per 1,000 FTE at baseline to 1.4 per 1,000 FTE at follow-up. The average number of medical treatment injuries for worksites in the manufacturing network was similar at baseline and follow-up.

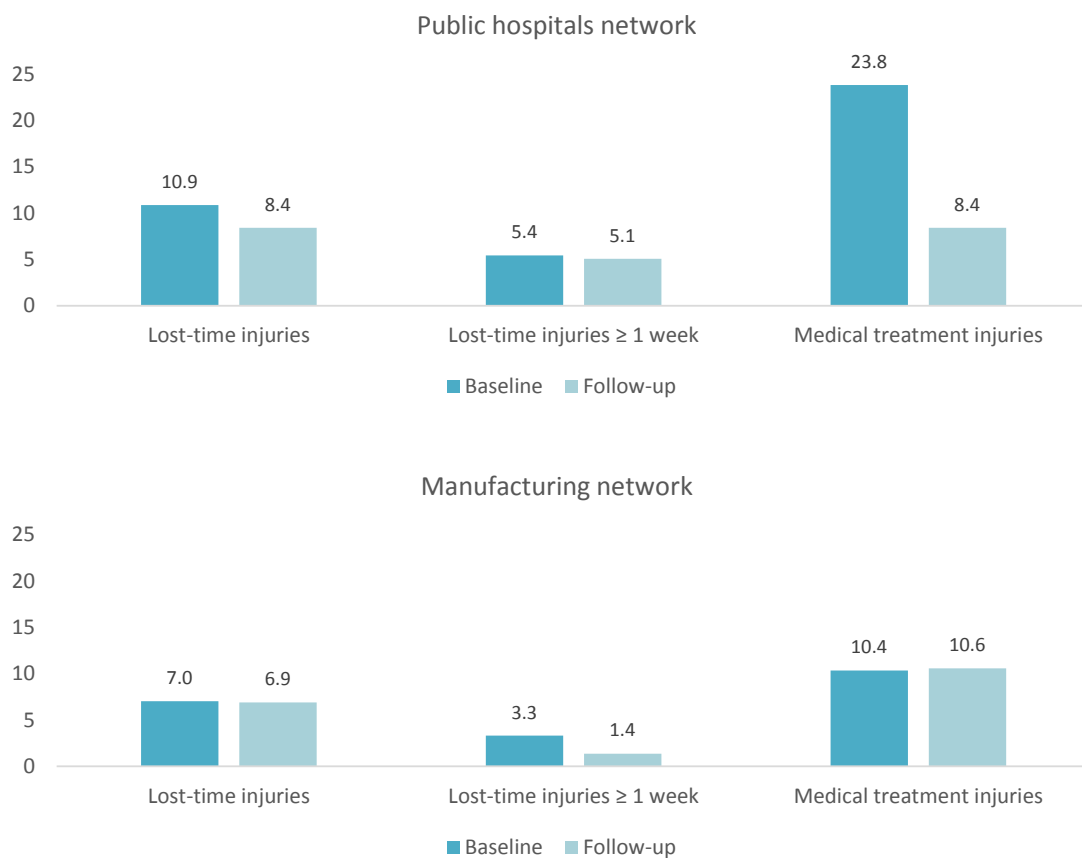


Figure 18: Lost-time and medical treatment injuries per 1000 FTE employee

Using data collected in worksite audits, reported near misses and hazards at the worksite level are displayed in Figure 19. In the public hospitals network, the average number of near misses for worksites ($n = 7$) increased from an average of 14.5 per 1,000 FTE at baseline to 33.7 per 1,000 FTE. The average number of reported hazards for worksites ($n = 6$) increased from 12.9 per 1,000 FTE at baseline to 23.7 per 1,000 FTE at follow-up.

In the manufacturing network ($n = 7$), the average number of near misses increased from 26.9 per 1,000 FTE at baseline to 63.0 per 1,000 FTE at follow-up. The average number of reported hazards increased from 119 per 1,000 FTE at baseline to 193.6 per 1,000 FTE at follow-up.

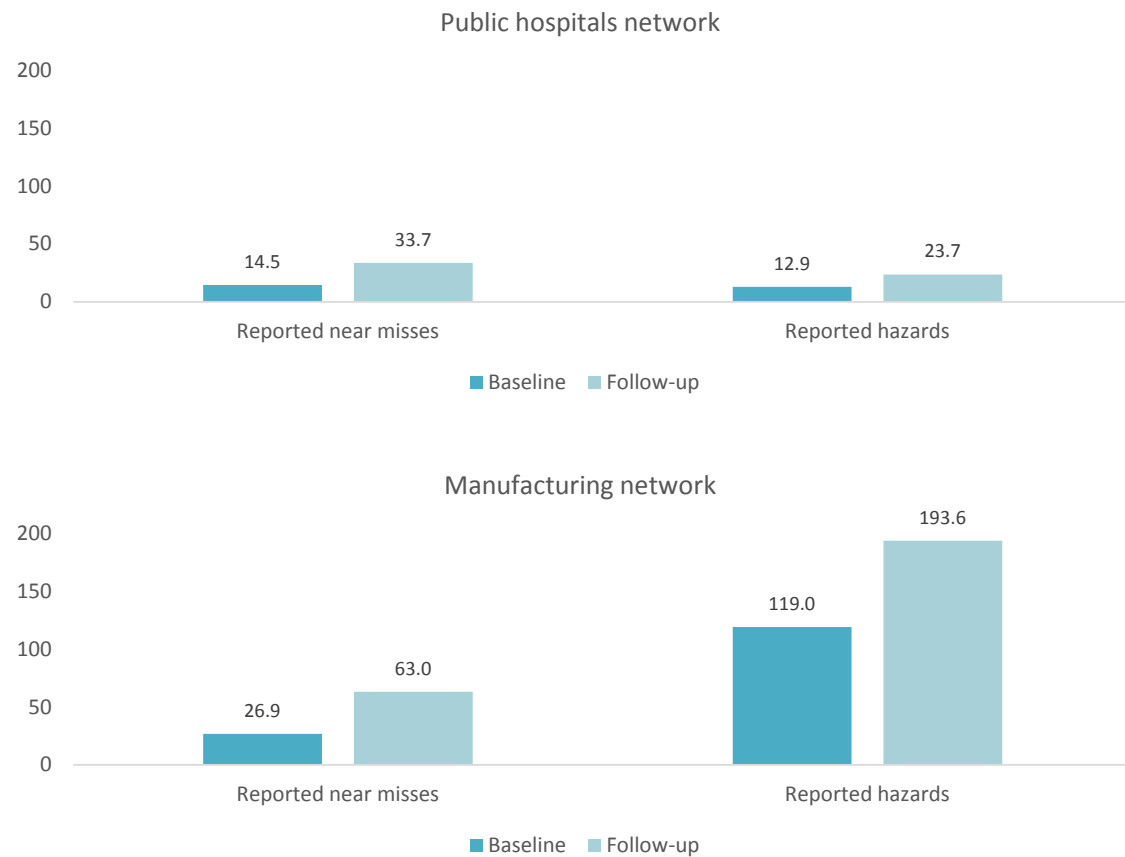


Figure 19: Reported near misses and hazards per 1000 FTE employee

4.4.2. Value of lost productivity based on claims data at worksite level

As reported by IA champions in worksite audits, Figure 20 presents average lost productivity days due to injury or illness, where lost productivity days include both sick leave days and compensation days (partial and complete). In the public hospitals network ($n = 5$), lost productivity days decreased from 4,010 per 1,000 FTE employee at baseline to 3,839 per 1,000 FTE at follow-up. Sick leave days reduced from 3,726 per 1,000 FTE at baseline to 3,421 per 1,000 FTE at follow-up. The days compensation paid reported in this figure differs to that of Figure 25, due to differences in sample sizes for worksites reporting sick leave days. Lost compensation days totalled 284 per 1,000 FTE employee at baseline and 418 per 1,000 FTE employee at follow-up.

In the manufacturing network ($n = 6$), lost productivity days at the worksite level increased from 2,618 per 1,000 FTE at baseline to 3,071 per 1,000 FTE at follow-up. Sick leave days increased from 2,330 at baseline to 2,810 per 1,000 FTE at follow-up, while days compensation paid for worksites that reported both sick leave days and lost compensation days decreased from 288 per 1,000 FTE at baseline to 261 per 1,000 FTE at follow-up.

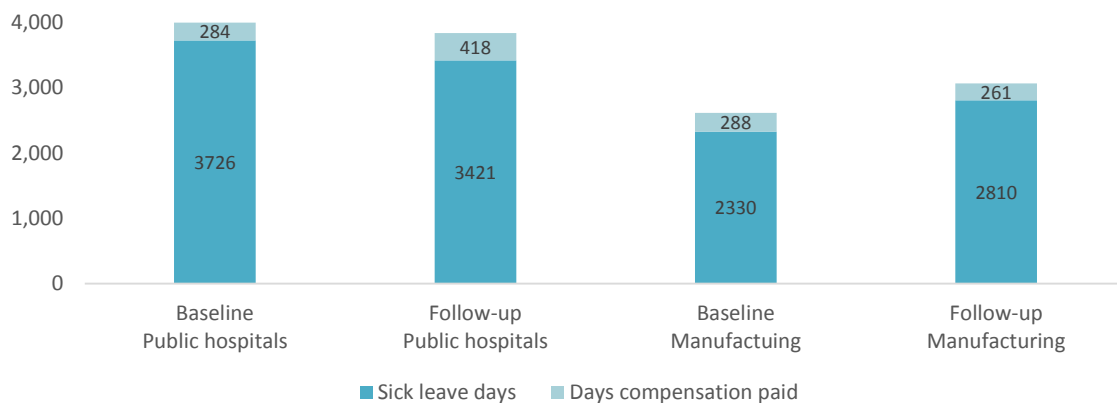


Figure 20: Lost productivity days (worksite level)

The value of lost productivity days at baseline and follow-up are presented in Figure 21. For hospitals, total lost productivity due to injury or illness decreased from \$887,007 to \$863,871 per 1,000 FTE at follow-up. For manufacturing, lost productivity increased from \$718,979 to \$738,511 per 1,000 FTE.



Figure 21: Value of lost productivity days (worksite level)

4.4.3. Changes in claims at the workplace level

In this section we use workplace level compensation claims data collected from WorkSafe Victoria to provide insights into the types of claims approved for the baseline and follow-up periods for worksites in the public hospitals ($n = 6$) and manufacturing ($n = 9$) networks. Figure 22 below displays the proportion of claims due to the different injury types at baseline and follow-up. This figure shows that in the public hospital network, there were increases in the proportion of claims from baseline to follow-up for fractures, musculoskeletal and other injury. However, there was a decrease in the proportion of claims from baseline to follow-up for mental disorders and wounds, lacerations and amputations from baseline to follow-up.

This figure shows a different pattern in the manufacturing network. There were increases in the proportion of claims from baseline to follow-up for 'other injury' types with the amount of injuries in this category increasing from zero to 50%. Decreases for mental disorders, traumatic joint, ligament, muscle or tendon and wounds, lacerations and amputation injuries with the proportion of claims for these injury types reducing from 17% (each) of total claims per FTE at baseline to zero at follow-up. There was no change in the proportion of claims from baseline to follow-up for musculoskeletal injuries.

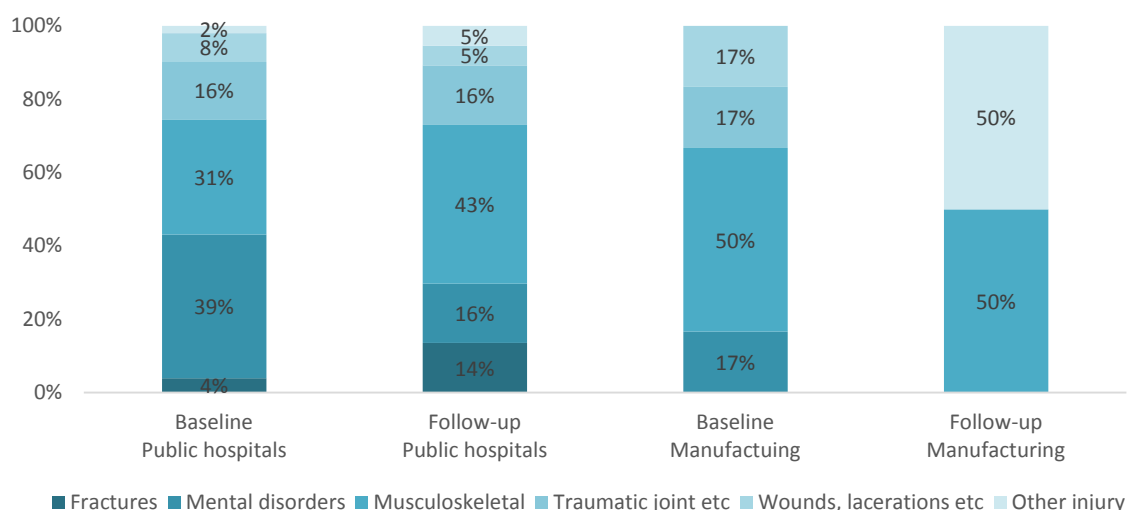


Figure 22: Proportion of approved claims by injury type (workplace level)

Figure 23 displays the proportion of claims by mechanism of injury or disease. In the public hospitals network, there was an increase from baseline to follow-up in the proportion of claims due to injuries that involved being hit by a moving object, body stressing, hitting an object as well as slips trips and falls. There was a decrease in claims due to mental stress factors and 'other' mechanisms from baseline to follow-up.

In the manufacturing network, there was an increase from baseline to follow-up in the proportion of claims due to injuries that involved 'other' mechanisms (from zero to 50%). A decrease in the proportion of claims was observed for injuries such as being hit by a moving object (from 17% to zero), body stressing and mental stress factors (from 17% to zero).

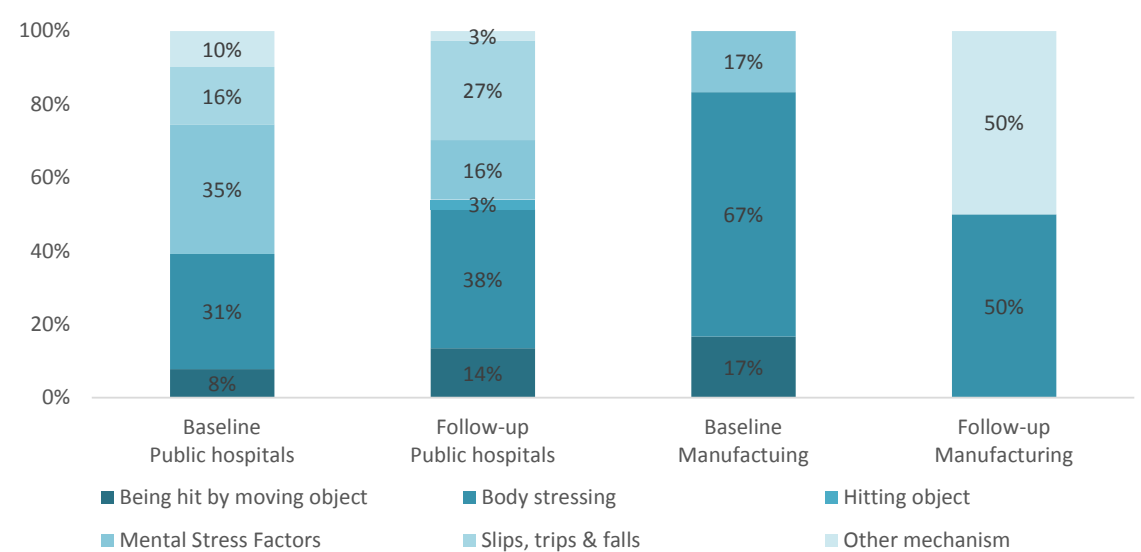


Figure 23: Proportion of approved claims by mechanism type (workplace level)

4.4.4. Changes in claims at the worksite level

In this section we use worksite level information reported by IA champions in worksite audits. Figure 24 displays the average number of submitted and approved claims in the public hospitals ($n = 6$) and manufacturing ($n = 9$) networks. These worksite level claims include all claims that were submitted to WorkSafe during baseline and follow-up periods and include those not yet approved. The data indicate that newly submitted and approved claims increased across the baseline and follow-up periods for worksites in both sectors.

In the public hospitals network, the average number of claims submitted increased from 7.6 per 1,000 FTE employee at baseline to 10.2 per 1,000 FTE at follow-up. Average claims approved also increased from 7.6 per 1,000 FTE employee at baseline to 10.2 per 1,000 FTE employee at follow-up.

In the manufacturing network, the average number of claims submitted increased from 6.6 per 1,000 FTE employee at baseline to 8.8 per 1,000 FTE employee at follow-up. The average claims approved rose slightly from 7.9 per 1,000 FTE at baseline to 9.2 per 1,000 FTE at follow-up. The conflict between the number of submitted claims and the number of approved claims in the manufacturing network may be the result of delays in the claims submission and approval procedures.

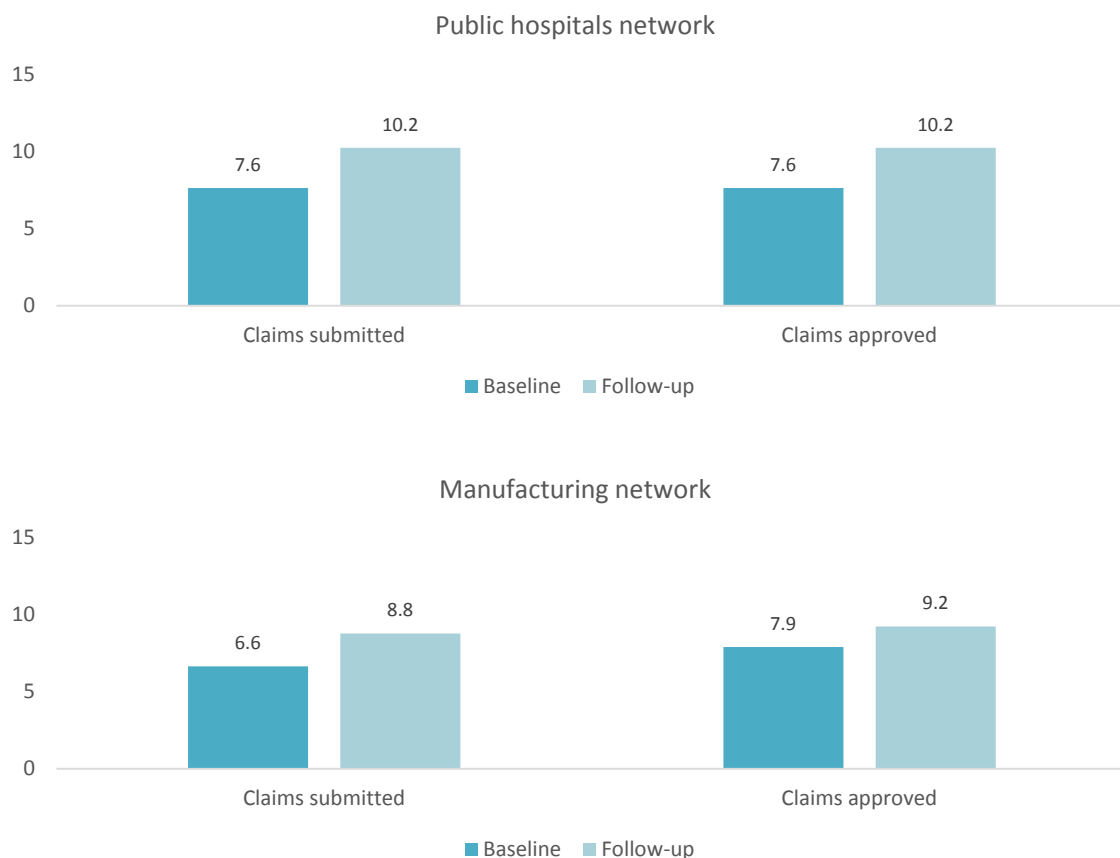


Figure 24: Average claims submitted and approved (worksite level)

Using data reported by IA champions in worksite audits, compensation days per 1,000 FTE employee at the worksite level are reported in Figure 25 below, where compensation days are divided into complete incapacity days and partial incapacity days. Along with the rise in the amount of claims approved, average compensation days also increased for hospital worksites ($n = 6$), from 263.2 per 1,000 FTE at baseline to 388.2 per 1,000 FTE at follow-up. This was largely driven by an increase in complete incapacity days. For the manufacturing worksites ($n = 9$), compensation days reduced from 233.7 per 1,000 FTE at baseline to 203.9 per 1,000 FTE at follow-up. The number of complete incapacity days reduced on average for manufacturing; however, partial incapacity days increased.

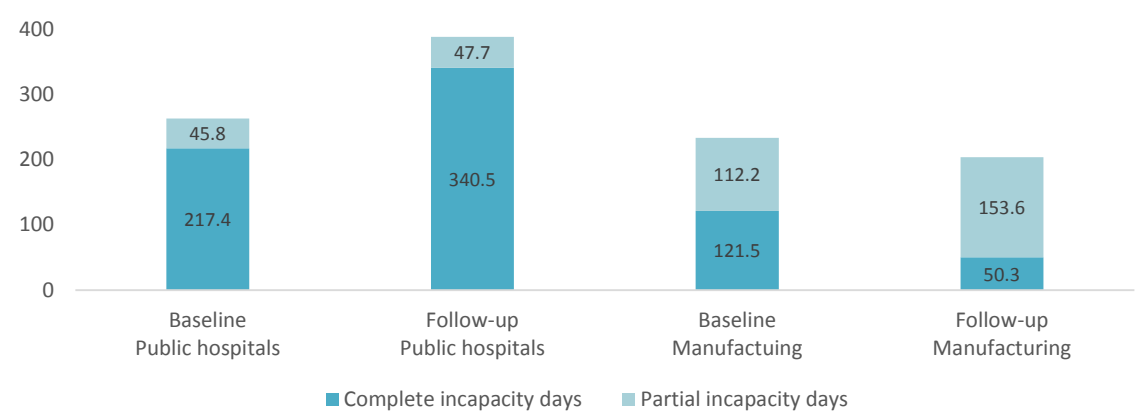


Figure 25: Compensation days (worksite level)

4.4.5. Cost of WIN program to WorkSafe Victoria

According to information provided by WorkSafe Victoria, direct costs of the WIN program to WorkSafe Victoria included incentive payments to worksites and contractual payments to the network chair organisations. At the commencement of each wave, worksites were given an initial payment of \$2,000, and another \$3,000 upon conclusion of the wave (worksites that withdrew from the WIN program before the end of a wave were not paid the additional \$3,000). One worksite was also paid an extra \$5,000 during the first wave.

Incentive payments to worksites that participated in the WIN program totalled \$145,000 for hospitals and \$135,000 for manufacturing. This amounted to \$91.96 per FTE employee for hospitals and \$24.95 per FTE employee for manufacturing (these figures were calculated according to FTE employees in responding worksites). Note that per FTE costs are higher for hospitals than manufacturing due to higher numbers of employees per workgroup in manufacturing.

Payments to the network chairs totalled \$672,000 which, if split evenly between the two networks (i.e., each received \$336,000), is equated to \$289.69 per FTE employee in hospital workgroups, and \$73.96 per FTE in manufacturing workgroups (again, according to FTE employees of the responding sample). Total direct costs to WorkSafe by network are shown below in Figure 26 and costs per 1000 FTE employee in Figure 27.

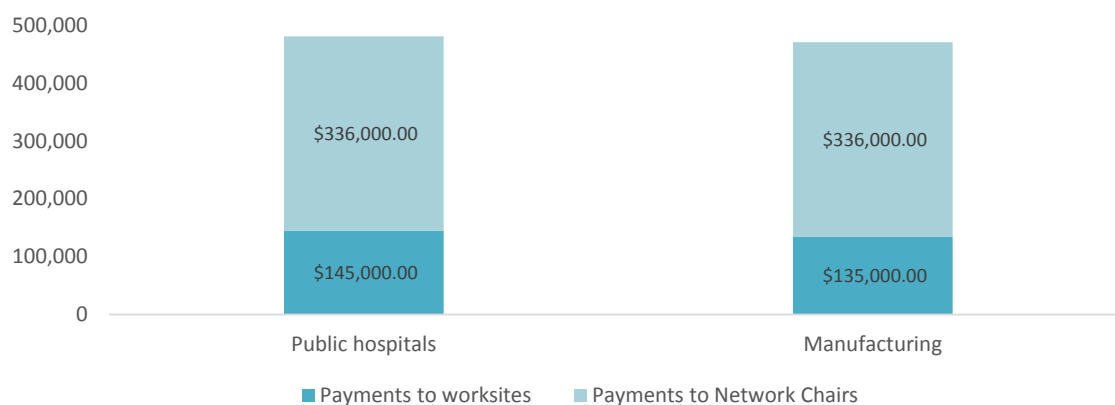


Figure 26: Total direct costs to WorkSafe Victoria by network

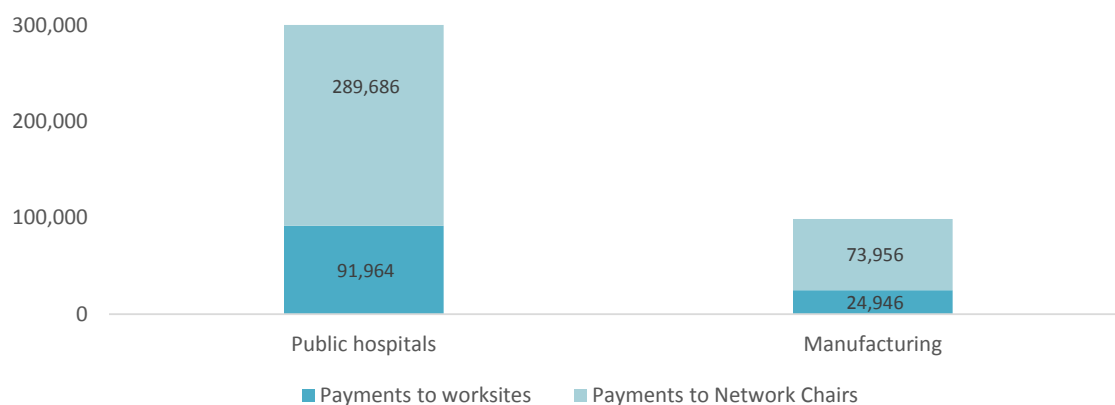


Figure 27: Direct costs to WorkSafe Victoria per 1,000 FTE by network

Costs and key outcomes are summarised below in Table 6. Total direct costs of the WIN amounted to \$381,649 per 1,000 FTE for the public hospitals network and \$98,902 per 1,000 FTE for the manufacturing network.

Using the data from worksite audits to compare baseline and follow-up, for public hospitals there was a decline in workplace incidents (injuries) and lost productivity due to injury or illness. The amount of claims approved however increased between baseline and follow-up periods. In the manufacturing network, workplace incidents (injuries) increased on average, as did total claims and lost productivity due to injury or illness.

Table 6: Summary of costs and outcomes

	Hospitals		Manufacturing	
Overall costs				
Direct payments to worksites	\$145,000		\$135,000	
Contractual costs to network chairs	\$336,000		\$336,000	
Total overall costs	\$481,000		\$471,000	
Costs per 1,000 FTE employee¹				
Direct payments to worksites	\$91,964		\$24,946	
Contractual costs to network chairs	\$289,686		\$73,956	
Total direct costs per 1,000 FTE employee	\$381,649		\$98,902	
Outcomes (all per 1,000 FTE)	Baseline	Follow-up	Baseline	Follow-up
Workplace incidents (injuries)	274.25	124.13	71.69	96.62
Total claims approved	7.63	10.22	7.88	9.23
Value of lost productivity due to injury or illness	\$887,007	\$863,870	\$718,979	\$738,512

The study design and sample size means that the results of the economic analysis cannot be conclusive. The WIN program was associated with an increase in reported hazards and near miss injuries but a reduction in reported lost-time injuries in both networks and a reduction in medical treatment injuries in the public hospitals network. There was also a slight improvement in the mental health of employees in manufacturing workgroups.

There was no observed improvement in productivity or reduction in claims but this may be because of a lag in the timing of compensation claims. Overall, the results of WIN program are consistent with a potential increase in awareness of risks and an apparent reduction in the incidence and severity of injuries and illness.

4.5. Sustainability of an integrated approach at worksites

There were some findings from the interviews and focus groups, held six months post program, that suggest the IA approach is sustainable including:

- ▶ the importance of leadership support and commitment;
- ▶ the beneficial role of the IA champion and committees;
- ▶ the need for ongoing employee engagement and consultation;
- ▶ the value of evaluation results and reporting; and
- ▶ new ways to consider workplace health, safety and wellbeing issues.

Leadership support and commitment. Senior leadership buy-in was an important factor for worksite participation, commitment and for recognising program outcomes. IA committees

from both networks commented on the importance of their senior managers being interested in the WIN program in order to engage the rest of the organisation and to achieve a long commitment from everybody.

Our CEO just thinks this is a really great project and has asked if we can actually adopt it organisation wide. – IA committee member (manufacturing)

Senior managers participating in the IA committee focus groups also commented that they felt it was important for management to demonstrate commitment to new initiatives like the WIN Program.

I think we as managers need to encourage people to feel comfortable that they can take that initiative, and what we've gained out of it, is that we need to make sure that staff feel like they can take that initiative ... So we've learnt that as managers, staff need to be able to know that, yes, we have a focus on [health, wellbeing and safety]. – IA committee member (public hospital)

IA champion and committees. The ongoing role of the IA champion and committee with suitable knowledge, skills and resources were considered by participants in interviews and focus groups as very important for the sustainability of WIN program outcomes. The role of the worksite champion is especially important for the design and implementation of WIN activities.

As long as the team have got that core understanding of what they're meant to be doing and what the project means to that business, then it seems to keep going. – Network chair

Our structure would have been if we had an OHS person to drive the process and more HR involvement. So making sure you've got all those resources in place [is important]. – IA committee member (public hospital)

Employee engagement and consultation. Most worksite IA committees viewed employee engagement and frequent employee consultation as critically important for sustainable outcomes of the program; however, this was dependent on ongoing consultation leading to changes in the worksite. Employee involvement in PDSAs was identified in interviews and focus groups as a factor in the success of the WIN program:

They found that, when you ask workers for their opinions you get some really great ideas. Through having the WIN teams focusing on their different interventions they got a lot more staff involvement, where they've perhaps not seen the true benefit of doing that before. – Network chair

Evaluation research and reporting. In post-program interviews and focus groups, the evaluation was described as a 'drawcard' for many worksites to participate in the WIN, and they have really benefited from the evaluation process and results.

*So I think some of the key outcomes that we got out of it was probably in awareness into a few areas of insights that we hadn't specifically had data or information previously on. So we probably had a bit of I guess an understanding of, but probably not really the full data and facts to support it – **IA committee member (manufacturing)***

*The piece that I think was really valuable for the businesses was the evaluation, and I think that's opened their eyes quite significantly to what information from employees targeted, plus also the reviewing their internal organisational data. That tied together, [I would] think that's been quite invaluable for them, and what they've learned from actually doing that and then benchmarking against the other businesses. – **Network chair***

The evaluation has introduced worksites to the different types of data they can use to understand the health, safety and wellbeing issues in their workforces. Worksites can now consider the value of gathering and using ongoing data about their workforce into the future.

*The value that they placed on the data, I think that's probably another area that will be sustainable. Now that they've seen the breadth of data that is available to them - and we put a lot of work into helping them interpret that data and plan their interventions - I expect that that will be maintained. – **WorkHealth team member***

Physical goods purchased and tangible environmental changes. Material goods purchased and tangible environmental changes resulting from WIN activities and/or funding was mentioned by both public hospitals and manufacturing sites as a sustainable aspect of the program.

*So I think the biggest outcomes in this, and the sustaining ones, were the ones that were physically paid for, and that was materials, equipment. So they're still in place, but I think some of those other things where they require human resources to continue and maintain are much easier to drop away as demands shift. – **IA committee member (public hospital)***

*They're all areas where there's some aspect of safety culture or have literally been physically put into our site. So whether that's a - for example, I'm trying to think - like safety security cameras or guarding or some reduction in the amount being listed or trolleys or pallet elevators - they're all physical parts of the environment which still exist. – **IA committee member (manufacturing)***

Long term sustainability of IA. In interviews and focus groups there was discussion about whether activities would be able to be sustained beyond the timeframe of the WIN program. Not all worksite IA committees felt confident that the WIN program had manifested some long-term changes, but for others, the WIN program afforded a new way of thinking about health, safety and wellbeing at their worksite – whether it be the creation of the committee, improving employee engagement or achieving small changes in their PDSA cycles.

*This program for me was a real good kick-start. But this doesn't stop now for us. We have to change a lot of things. To me this just keeps rolling. – **IA committee member (manufacturing)***

*I'd really like to continue the momentum here. We can really take some of those gains from the surveys that we've had and really try and implement them as we move, to know that these are the things we need to focus on. Just really take that momentum and continue it and continue raising that awareness. We do have other areas that we want to focus on. – **IA committee member (public hospital)***

*I think the ones that have seen the value in it and have got some good structures in place, then I think, in that particular worksite, that will probably continue. Then there's the ones who've identified they want to use a similar process in other areas, so that's encouraging. I think there's some that haven't put the required effort into it and haven't had that sort of person leading it and championing it, who will probably just say, okay, well, we were part of the WIN and now we're finished with that. – **Network chair***

*I think some worksites have reached the point where they are expecting to see [outcomes] at the end of the program, and are looking at opportunities of how they can transfer some of the learning more broadly across the whole organisation, which was the whole intent at the start. – **WorkHealth team member***

5. Summary and Recommendations

The WorkHealth Improvement Network (WIN) program was designed and implemented with the aim of trialling an integrated approach (IA) to employee health, safety and wellbeing. The program was conducted within two industry networks in Australia, manufacturing and public hospitals, with each industry network being led by a network chair. The program was implemented in 31 worksites across three waves from March 2015 to July 2016.

5.1. Summary of evaluation findings

The WIN program applied a novel approach to industry collaboration. The network features such as network chairs and learning workshops offered opportunities to the participating worksites to learn and share information throughout the program. Worksites then applied their new knowledge of integrated approaches to implement a range of activities designed to improve safety culture, enhance mental wellbeing and decrease musculoskeletal disorders. A feature of the WIN program was the availability of data to enhance understanding of health, safety and wellbeing across the two networks. The WIN program trialled several methodologies and tools that could be sustained in the participating worksites and adapted for use in future programs.

We now summarise the key findings of the WIN evaluation, which has assessed the process and impact of the WIN program by addressing the following areas:

- ▶ the implementation of an integrated approach including barriers, facilitators and lessons learnt;
- ▶ changes at worksites from baseline to follow-up;
- ▶ an economic analysis; and
- ▶ the sustainability of an integrated approach.

5.1.1. Program implementation

- ▶ Worksites in both networks used multiple PDSA cycles to implement a range of WIN activities. Public hospital worksites were more likely to undertake focus group activities to engage and consult with their employees. The majority of manufacturing worksites designed activities to develop new procedures (e.g., the use of floor-mats to prevent musculoskeletal discomfort).
- ▶ Employee participation in WIN activities was relatively stable across the public hospitals worksites from baseline to follow-up. In the manufacturing worksites employee participation increased slightly from baseline to follow-up.
- ▶ Common barriers to the implementation of an integrated approach in the WIN program included: lack of leadership support and commitment; worksite culture and resistance to change; time constraints of the WIN program; complexity of the WIN program; lack of funding or access to resources; and lack of capacity in smaller worksites.
- ▶ The main facilitators can be summarised as: the application of evaluation results; integrated approaches being used as a new way of working; the support of

networks; the IA champion and committee; PDSA cycles as 'small wins'; and leadership support and commitment.

5.1.2. Worksite changes from baseline to follow-up

- ▶ The worksite audits included an 'Indicators of Integration' measure. Scores on this measure for worksites in the public hospitals and manufacturing networks showed some improvement, on average, from baseline to follow-up. A comparison of integration scores across the two networks showed that 7 of the 10 manufacturing worksites had improved integration scores at follow-up while only 8 of the 16 worksites in public hospitals had improved integration scores at follow-up.
- ▶ Key findings from the employee survey showed that approximately half of the worksites in each network demonstrated improvements in employee ratings of safety culture, mental health, physical health and a reduction in musculoskeletal disorders:
 - a greater percentage of worksites in the public hospitals network than in the manufacturing network reported improvements in safety culture from baseline to follow-up. Employees in the public hospitals network rated their worksites lower overall on leading indicators of OHS, compared to those in the manufacturing network.
 - employees in the manufacturing network rated their mental health higher than those in the public hospitals network but physical health was rated at approximately equivalent levels in both networks.
 - employees in the public hospital network reported a slight increase in the experience of musculoskeletal disorders from baseline to follow-up. Conversely, there was a decrease in the experience of musculoskeletal disorders from baseline to follow-up in the manufacturing network. Overall, the employees in the manufacturing network experienced fewer musculoskeletal disorders compared to those in the public hospitals network.

5.1.3. Economic analysis

- ▶ In the public hospitals network, reported incidents, lost time injuries and medical treatment injuries decreased from baseline to follow-up. In the manufacturing network, reported incidents increased from baseline to follow-up although lost-time and medical treatment injuries were roughly the same. For worksites in both networks, reported near misses and reported hazards increased from baseline to follow-up.
- ▶ It is possible that the increases in reported near misses and hazards could reflect a greater awareness of potential dangers and hazards as a consequence of the WIN program.
- ▶ These changes in reporting are important outcomes for the WIN program because they might reflect a greater awareness of dangers but also a greater likelihood to report OHS issues and therefore is an indicator of improvements in safety culture. It is also a potential positive side effect of employee involvement in the WIN program.

- ▶ The reductions in workplace injuries observed following the implementation of the WIN program did not translate into an improvement in productivity or reduction in compensation claims.

5.1.4. Sustainability of an integrated approach at worksites

- ▶ Key factors contributing to the likelihood that a worksite would sustain an integrated approach beyond their participation in the WIN program include: the support and commitment of leaders in their organisations; IA champion and committees with suitable knowledge, skills and resources; employee consultation, the use of evaluation research to guide decisions; and monetary investment and support for health, safety and wellbeing activities.

5.2. Limitations

Overall, the findings from the WIN evaluation indicate that more than half of the worksites participating in the program were able to achieve modest levels of integration in the WIN program. Averaged across all worksites, employee health outcomes were positive and participating worksites observed some beneficial changes at worksite level, which in some cases were sustainable. However, worksites entered the WIN program with varying levels of organisational readiness and capacity to participate, which influenced their level of involvement with the program and their potential to achieve positive outcomes.

Several limitations of the WIN program and the evaluation can be identified. While the WIN program allowed worksites to have autonomy and flexibility it prevented the use of a scientific research evaluation that could also have included a control group. In particular, there was considerable heterogeneity in the type of WIN activities chosen by participating worksites and variation in the time allocated to PDSA activities. This does not allow for attributions between WIN activities and the measured outcomes from the program.

Worksites participated in the WIN program from 6 to 15 months depending on when they entered the program. Developing strategies for properly integrating health promotion, HR and workplace health and safety functions at the worksite level requires time, leadership and the skills. Therefore a number of worksites would have required more time to develop an integrated approach to health, safety and wellbeing in order to realise the full benefits of the WIN program and for changes at a worksite and worker level to be evident. This variability in participation time also limited the capacity of the economic analysis to quantify the impact of the WIN program.

5.3. Recommendations

The WIN program is an example of a new approach to strategic industry collaboration between WorkSafe Victoria and the networks led by DHHS and the Victorian Chamber of Commerce and Industry. The following recommendations have been developed from the findings of the WIN evaluation. These have been themed into program implementation and program evaluation recommendations. Several of the recommendations would apply not only to an integrated approach but to any future program that WorkSafe Victoria might implement. For example, the positive benefit for the worksites of direct involvement in the learning opportunities that arose from information sharing and collaboration could be applied

in other programs. The following set of recommendations reflects positive features and learnings of the WIN evaluation that could add value to future programs.

5.3.1. To facilitate program implementation:

- 1) Comprehensive training on integrated approaches should be provided to network chairs and key individuals participating in the program prior to the start of the program.
- 2) Consideration should be given to the likelihood that an integrated approaches model will be implemented alongside existing systems within participating worksites which may result in conflicting demands for the IA champion. For example, worksites should be provided with some flexibility with respect to the timing of program implementation, which would give them an opportunity to include it in their annual planning and budget cycle.
- 3) Learning workshops and supporting materials should be tailored to the level of organisational readiness as well as the varying skills and capabilities available at each worksite.
- 4) Network chairs should maintain frequent and ongoing engagement with worksites in order to provide tailored support and coaching to worksites.
- 5) Network chairs should encourage and assist the use of evaluation research data to inform the planning and implementation of activities at worksites.
- 6) Within worksites, IA champions should build awareness and involvement among employees with regard to the progress of the program.
- 7) For an IA program, each IA committee should represent OHS, HP and HRM, where possible.
- 8) For IA programs, tools such as PDSA cycles can be a useful mechanism to achieve small wins, but they should apply an integrated approach rather than a focus on one area such as OHS.
- 9) Ongoing collaboration should be encouraged and facilitated between worksites in each network and across networks to share learnings and build cross-industry support structures.

5.3.2. To facilitate program evaluation:

- 10) An evaluation project should be co-designed with the program so that the benefits of evaluation research, such as timely feedback to worksites during the program, can be maximised.
- 11) For an IA program, measures of an integrated approach should be refined to be able to assess the progress, impact and outcomes for worksites using this approach.
- 12) While the WIN program delivered a valuable 'real world' evaluation of an IA, future consideration should be given to the conduct of a research study with a more rigorous study design including a control group. Such a research study should aim to undertake a more comprehensive and long term evaluation of the WIN approach in terms of the health benefits for employees as well as the potential economic benefits for work organisations and the state of Victoria.

5.4. Conclusion

The WIN evaluation was a 'real world' evaluation which collected data at multiple time points from the four groups of informants. A mixed methods approach was used to collect and analyse the data before recommendations were made based on the evaluation findings. The evaluation findings highlight learnings from the process of implementing an integrated approach and the impacts observed throughout the program and at the end of the program. Due to the nature of the WIN program, several limitations have been identified; however, these limitations notwithstanding, the evaluation findings have generated some important recommendations and guidance for the future.

The WIN program was designed to trial an integrated approach to worker health, safety and wellbeing in two selected industries. The evaluation findings provide some good evidence for the feasibility and acceptability of implementing an integrated approach to improve the health, safety and wellbeing of workforces as well as some preliminary evidence of the short term benefits. However, further research using a stronger evaluation study design would help to determine the longer term benefits of the WIN approach.

Building on previous research conducted in Victoria, Australia in "early adopter" workplaces, the WIN program has shown that while using an integrated approach can have positive outcomes, strong support and leadership is required by employers and their employees to plan, implement and sustain the program.¹⁶ The evaluation findings also demonstrate that other factors for worksites' successful implementation of the WIN program were: the coaching support from network chairs; education and resourcing of IA committees in worksites; and the use of evaluation data by work organisations to understand better the workforce health, safety and wellbeing issues in their worksites.

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