



WorkHealth Research Synthesis Report

Research team

Monash Centre for Occupational and Environmental Health

Professor Malcolm Sim

Dr Helen Kelsall

Dr Roslin Botlero

Mr Mohammadreza Mohebbi

Dr Mina Roberts

School of Public Health & Preventive Medicine

Professor John McNeil

Professor Andrew Tonkin

Associate Professor Sophia Zoungas

Ms Nerida Joss

Ms Cassandra Wright

Professor Helen Keleher

Baker IDI Heart & Diabetes Institute

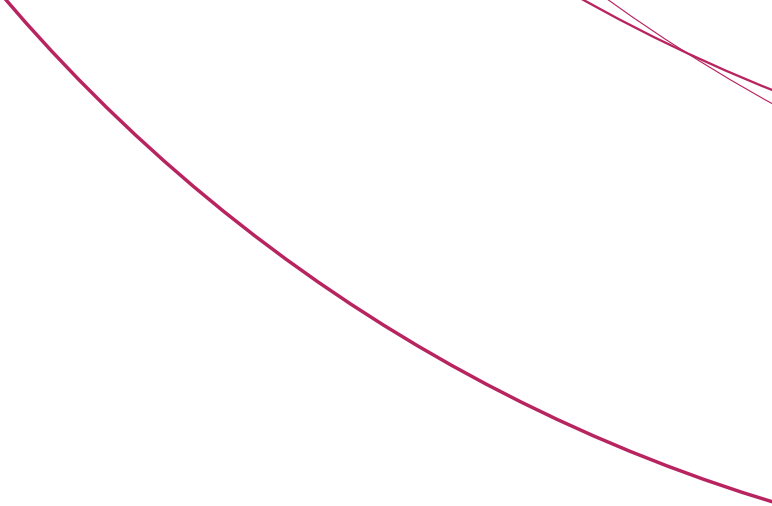
Associate Professor Anna Peeters

Institute for Safety, Compensation and Recovery

Professor Niki Ellis

Printed April 2013







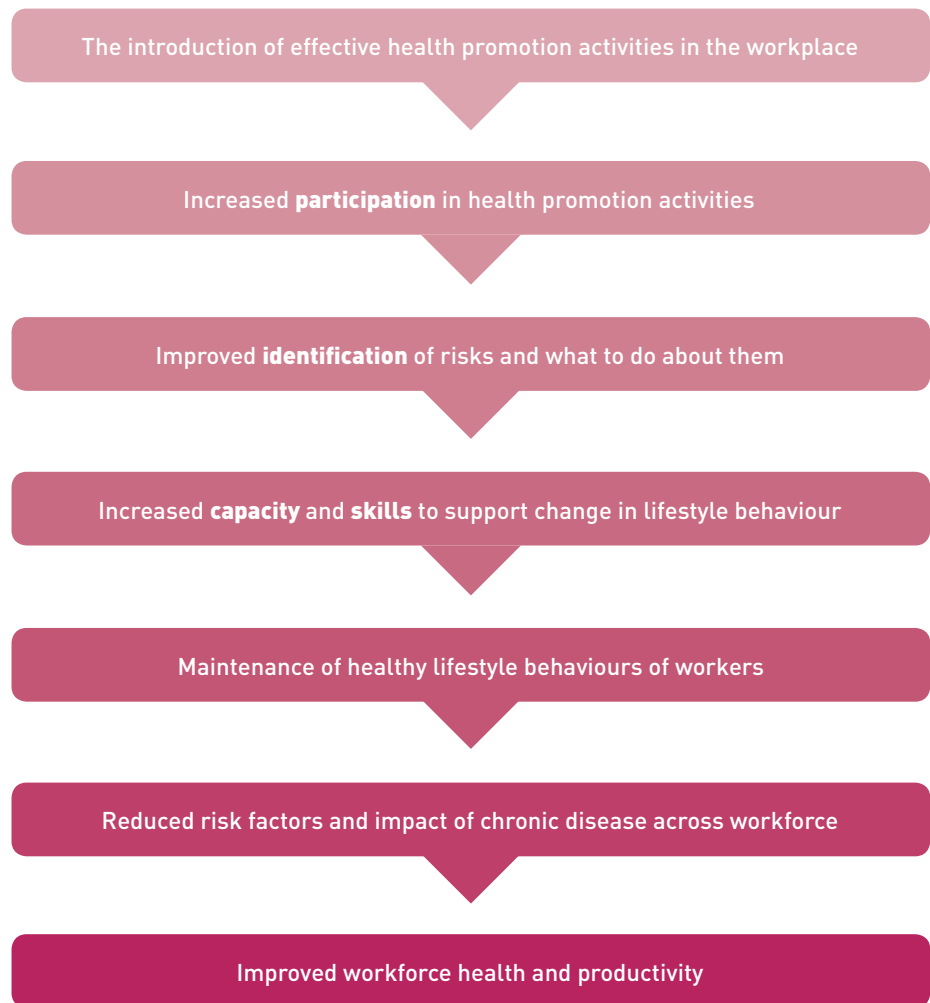
INTRODUCTION

WorkHealth, an initiative of WorkSafe Victoria, is a program of voluntary WorkHealth checks (WHCs) for chronic disease risks and workplace health promotion activities to raise health awareness and support healthy lifestyle choices across the Victorian workforce. Increasing rates of obesity and chronic diseases, such as type 2 diabetes and cardiovascular disease (CVD), can have an impact on worker health and productivity, in particular through increased workplace injuries, greater disability following these injuries and higher rates of sickness absence. In response, WorkSafe has identified workplace-based health promotion as a preventive approach to reducing the extent of chronic diseases and their impact on workplace productivity. WorkSafe's links with Victorian workplaces have provided an opportunity to implement workplace health promotion on a large scale to prevent chronic disease, reduce workplace injury and sickness absence, and increase productivity.

At the time of this report, more than one in five Victorian workers had taken part in the WorkHealth program, which engages a mix of activities targeting workers and workplaces, including workplace-based health risk assessments for type 2 diabetes and CVD, lifestyle behaviour change programs related to SNAP (smoking, nutrition, alcohol and physical activity) risk factors, and seed funding for workplaces to introduce health promotion activities.

OVERVIEW AND CONTEXT OF THE RESEARCH

A program logic¹ was developed to guide the development of the WorkHealth program. The logic connects the program activities to the program impacts and goals over the program's lifetime. It includes a sequence of steps, labelled as hypotheses, which illustrate the links between activities and impacts of the program:



1. Aspex Consulting 2010

Monash University's School of Public Health and Preventive Medicine and collaborators, through the Institute for Safety, Compensation and Recovery Research (ISCRR), were contracted to conduct research and evaluation of the WorkHealth program between August 2010 and August 2012. This comprised four integrated projects which aimed to evaluate the short, medium and long-term impacts, identified in the program logic of WorkHealth, on Victorian workers and their workplaces. Each project focused on one or more aspects of the program logic, using a series of indicators engaging quantitative and qualitative methodologies as follows:

WorkHealth check (WHC) data analysis: Information about type 2 diabetes and cardio-vascular disease (CVD) risk and associated lifestyle factors collected during WHCs on the first 500,000 participants was analysed to quantify the extent of these disease risks and lifestyle factors and to identify higher-risk subgroups, broken down by characteristics, such as category of occupation, industry and Local Government Area (LGA), to help inform ongoing WorkHealth program targeting.

Follow-up worker study: This study investigated the degree of change in lifestyle factors and other outcomes resulting from referral of WHC participants considered to be at increased risk of type 2 diabetes or CVD to their doctors, and to investigate the influence of their health on work-related factors (self-reported sickness absence, self-reported compensation claims and work ability). This study involved a postal questionnaire and linkage with pathology providers and Medicare data in a sample of WHC participants. A total of 1,306 workers participated in this study, and two periods of follow-up were used – one at about one year and another at about two years after their WHC to investigate persistence of any changes.

Workplace impact modelling: This study forecast the impact of the WorkHealth program on absenteeism, presenteeism and compensable workplace injury to predict the program's short term (1–2 year) effects on the productivity of Victorian workers. The estimates are based on a model in which data on the participation of people at different levels in the program was combined with information from the scientific health literature about the impact of health promotion programs on sickness absence, workplace injury and presenteeism expected from participation in a WHC, plus or minus a lifestyle behavioural program, plus or minus, a workplace health program.

Impact and process evaluation: This evaluation aimed to understand how effective the WorkHealth program has been in supporting workplaces to undertake health and wellbeing programs for their employees, and to determine the organisational drivers of successful and sustainable workplace health promotion initiatives. For the process evaluation, workplaces that had participated in WHCs were sent an online survey and 2,649 responded. Qualitative data were collected at 27 workplaces, involving in-depth interviews with WorkHealth coordinators and focus groups involving a total of 189 employees. Twelve key informant interviews were also held with broader WorkHealth stakeholders.

KEY FINDINGS AND OBSERVATIONS FROM THE RESEARCH AND EVALUATION

A synthesis of findings from across the four projects has identified several key integrated themes about the operation, impact and future directions of the WorkHealth program, which are presented below. Key findings from each step of the program logic hypotheses are then discussed in more detail.

As of June 2012, 26,232 workplaces had participated in the WorkHealth program, with a total of about 560,000 WHCs performed, with higher involvement in white collar than blue collar industries and occupations.

Interviews and focus groups in the impact evaluation revealed that for many workplaces, WorkHealth provided a first opportunity to participate in a comprehensive on-site health program, while 90% of participants in the follow-up study strongly agreed/agreed that WHCs had made workers more aware of their health.

About three quarters of participants strongly agreed or agreed that their workplace supported health promotion and this was also a common theme in the focus groups.

Workplaces that accessed a WorkHealth grant in addition to WHCs were at least three times more likely to report that they had made subsequent changes to their workplace which included positive impacts with regard to employee health behaviours, improved workplace culture and improvement in morale and safety.

43% of WHC participants were identified to be at medium risk of type 2 diabetes and 24% were identified at high risk of type 2 diabetes, while 16% were at medium or high risk of cardio-vascular disease (CVD). Risks were much higher in men and in blue collar workers.

More than 50% in the worker follow-up study reported not visiting their doctor for follow up since the WHC for further advice and/or tests about their WHC results. Doctor visits were higher in those with more serious reasons for referral.

Increasing uptake of the WorkHealth grants and WorkHealth Coach and Life! Taking Action on Diabetes programs has the potential to double the impact on productivity measures of the overall WorkHealth program.

In the follow-up study, much greater improvements in lifestyle factors were seen in those who reported being advised at their WHC to take action and who then took action, indicating that motivating workers to take action is an important enabler.

Focus group participants raised concern about the accuracy of the non-fasting cholesterol and blood glucose tests in the WHC.

Workplaces are still prioritising OHS before considering health promotion activities, which is driven by a scarcity in resources to manage both.

Common barriers to workplace capacity for health and wellbeing programs included poor access to resources, low support from senior management and lack of leadership to coordinate activities.

Modelling of outcome forecast goals for a 10% reduction in absenteeism and a 5% reduction in compensable injury rates are likely to be met, especially as health promotion program uptake increases.

WorkHealth appears to have had a ripple effect beyond CVD and diabetes risk reduction into other types of workplace health and wellbeing, such as mental health promotion.

1. The introduction of effective health promotion activities in the workplace

As of 30 June 2012, 26,232 workplaces had participated in the WorkHealth program. Within these workplaces together with public events, around 560,000 WHCs had been conducted and around 750 WorkHealth grants had been implemented. Of the 560,000 WHC participants, 12% were exposed to WorkHealth grants. This increased to 29% between 1 January 2012 and 20 June 2012, due to a greater focus on these programs. The uptake of WorkHealth Coach and Life! referrals was 5% overall and 7.5% for those at medium to high risk. This increased to 8% overall and to 12% of those at medium to high risk between 1 January 2012 to 20 June 2012.

Interviews in the impact evaluation revealed the importance of WorkSafe Victoria's role in establishing the WorkHealth program and indicated that the media coverage across the lifespan of the program has raised awareness about worker health and influenced workplace engagement in the program. This was also supported by focus group discussions.

'WorkHealth is designed and constructed to prevent. So I think that's good and I think having it in a place that engages as strongly as WorkSafe does with employers and unions is a great combination because they represent – that represents a connection to the people who at least have a pretty significant ability to re-shape the thinking and design of workplaces over time' – Key stakeholder

Interviews in this study also revealed that employer engagement in the program was primarily driven by perceptions of the potential for increased employee wellbeing, and in some cases productivity. For many workplaces, WorkHealth provided a first opportunity to participate in a comprehensive on-site health program. Prior to engaging in the program, many employers reported focusing their resources on occupational health and safety policies and programs, which did not include the capacity to implement health and wellbeing programs for their employees.

'I think people are enthusiastic about it, they like it, they want it. And my experience is that in over the years, that anything that we do that encourages some kind of team activity has always helped.' – Health and Wellbeing coordinator, metropolitan, small, white collar (grant)

2. Increased participation in health promotion activities

Statistical analysis conducted on the first 500,000 WHC participants indicated that penetration rates for WHCs varied by demographic characteristics and across occupations, industries and LGAs. A little over half of the participants were males, who are usually less likely than females to take part in health and wellbeing programs. There were 81% of participants from white collar industries, with Agriculture, Forestry and Fishing showing the lowest industry penetration with fewer than one in 20 workers participating. The highest coverage across occupations was among managers (23% penetration) and the lowest among sales workers (9% penetration) and blue collar workers, such as labourers. Penetration rates among technicians/trade workers, sales workers and labourers were twice as high in males as in females. Penetration was greater in metropolitan Melbourne (42%) than in rural and regional Victoria and varied widely by LGA across the state.

Impact study focus groups revealed that employee participation in WHCs was driven by the 'convenient' and 'professional' nature of the checks to measure health status. This also indicated that, for many workers, the WHC was the first time they had attended a general check-up due to their poor access to health care, or the fact that going to the doctor was usually reserved for when a person is 'genuinely' sick. A number of employers who were interviewed in the impact evaluation reflected that employees that had not taken up the checks at their workplace were thought to be the ones most likely at risk of chronic disease, although this perception couldn't be assessed quantitatively. At an individual level, participation in health promotion programs for which a participant may have been advised to participate at the WHC has not been high, as illustrated by 10.5% of those eligible taking up the WorkHealth Coach offer.

The workplace survey indicated that as a result of participating in the WorkHealth program, many workplaces engaged in health promotion activities and made subsequent changes to their workplace to improve employee health and wellbeing. Workplaces that accessed a WorkHealth grant in addition to WHCs were at least three times more likely to report that they had made subsequent changes to their workplace which included positive impacts with regard to employee health behaviours, improved workplace culture and improvement in morale and safety, as shown by the following findings:

- Healthy eating/diet management: 14% (WHC only), 49% (accessed a WH grant)
- Physical activity: 10% (WHC only), 44% (accessed a WH grant)
- Mental wellbeing: 6% (WHC only), 31% (accessed a WH grant)

The follow-up worker study also indicated that a wide variety of programs/activities had been introduced at workplaces since the WHCs, many of which had a greater reach than reduction in type 2 diabetes and CVD risk factors. This suggests that WorkHealth had a ripple effect into other types of health and wellbeing programs, which were not core to the WorkHealth program but were reported changes by workplaces after participating in the program. This could be due to an increased awareness of health and wellbeing on the agenda of workplaces and their capacity and imperative to offer particular types of programs. The most reported programs/activities were:

- medical checks, eg flu vaccinations, skin checks (65.1%)
- exercise promotion at work (49.4%)
- information/posters on healthy lifestyle behaviours (38.7%)
- greater emphasis on safety (35.5%)
- fruit baskets (34.4%)
- increased availability of healthy food (29.8%)
- wellbeing activities, eg massage, yoga (25.3%)
- participation in health promotion programs (23.2%)
- banned smoking at extended areas in/around the workplace (21.4%).

The health literacy evaluation of the WorkHealth print materials (as part of the process evaluation) revealed that the WorkHealth education print and online materials had very high reading grade levels and difficult reading ease. This suggests that for many employees, accessing the material and comprehension of the content would be greatly reduced. This is particularly important for the blue collar sector where literacy levels are likely to be lower and may be one reason for lower participation in WHCs among this group. This finding led to improvements in the readability of WorkHealth print materials to lower the reading grade levels and improve reading ease.

3. Improved identification of risks and further action

Approximately 43% of WHC participants were identified to be at medium risk of type 2 diabetes, and 24% were identified at high risk of type 2 diabetes based on the Australian Diabetes Risk Assessment (AUSDRISK) score used to assess type 2 diabetes risk for follow up by a doctor. The prevalence of high type 2 diabetes risk was two times greater in male workers than in female workers. Furthermore, 16% of WHC participants were at medium or high risk of CVD, with the prevalence of high CVD risk up to six times greater among males than females. Blue collar workers were more likely to have a high CVD or type 2 diabetes risk score and to report lifestyle risk factors compared with white collar workers.

Focus group participants commonly raised concern about the accuracy of the cholesterol and blood glucose tests in the WHC, as these were non-fasting. In other instances, participants reported that follow-up checks with their doctor indicated lower results, which often caused unnecessary concern on the participant's behalf.

A typical comment was:

'As far as the cholesterol was concerned I sort of thought, well, we weren't fasting, how correct was that?' – Focus Group, rural, small, white collar

About 90% of participants in the follow-up study strongly agreed/agreed that WHCs had made workers more aware of their health. While almost half (48%) of the participants reported visiting their doctor for follow up since the WHC for further advice and/or tests about their WHC results, more than 50% did not. This increased to 60% when workers reported being advised to visit a doctor after their WHC, which suggests that the algorithms for advice may be more effective when individually tailored. The urgency of the referral or risk factor also affected the likelihood of a worker visiting their doctor after their WHC; the follow-up worker study showed that all urgent 24 hour referrals attended within one month, around 20% of one-month referrals attended within one month and 50% within six months, and 45% did not attend at all. This finding of WHC participants identified at higher risk being more likely to seek medical advice was supported by a theme in the focus groups, which is illustrated by the following comment:

'Yeah, it [cholesterol level] was like sky-high. I was really, really ill and basically if I kept on the road of how I was I would have probably had a heart attack or something like that. So it helped me.' – Focus Group, metropolitan, medium, blue collar

Of 1,121 WHC participants who consented to pathology linkage, 446 individual participants (40%) had one or more pathology tests of relevance to type 2 diabetes or CVD within 11 months of their WHC. 4.5% (15/336) who had a fasting blood glucose (FBG) test during the 11 month post WHC period were likely to have diabetes based on the laboratory reference intervals, and about 85% of FBG test results were normal.

Low, medium or high AUSDRISK categories used in the WHC refer to the risk of developing type 2 diabetes in the next 5 years and there is a gradient of risk for scores within the AUSDRISK categories. However, the estimates of the proportion of likely diabetes in this study relate to an 11 month post WHC period, based on pathology testing. We estimated the risk of developing diabetes based on the AUSDRISK was about 1.5% per year, which was less than what we found in this WHC follow up study of about 5%.

Diabetes was more likely to be reported as a result of a FBG or a glucose tolerance test (GTT) in higher risk groups at their WHC, i.e. those who had an elevated random blood glucose (RBG) (FBG 13/117 = 11.1%) or who had a high AUSDRISK compared with a medium AUSDRISK score at their WHC (FBG 7/146 = 4.8% vs 2/155 = 1.3%), although the numbers were small and need to be considered with caution.

4. Increased capacity and skills to support change in lifestyle behaviour

The workplace survey indicated that nearly two-thirds of workplaces identified a shared responsibility for employee health and wellbeing. However, interviews revealed that while employers believed that it was their responsibility to provide workers with opportunities to improve health, ultimately they felt that responsibility for health and wellbeing lifestyle changes sat with individual employees. Of note, workplaces accessing a WorkHealth grant and larger organisations were more likely to share responsibility for employee health.

Suitable capacity and skills to support change in lifestyle behaviours were thought to be needed at the workplace and individual levels. Half of the workplaces participating in the online survey identified their workplace culture as proactive towards employee health and wellbeing, with large organisations (200+ employees, remuneration of \$10 million or more) being 30% more likely to report a proactive culture for health than smaller workplaces. There were also marked differences between industry types, whereby blue collar workplaces were less likely to have a proactive culture for health and wellbeing and more likely to report worker culture as preventing the adoption of health-related initiatives.

Workplaces accessing a WorkHealth grant were much more likely to identify, in the workplace survey, changes in workplace capacity to support healthy lifestyle choices and behaviours for their employees because of the experience of directly participating in activities, which encouraged a positive change in health behaviours. Sustainable changes were usually thought to occur when the workplaces had an existing culture of care and were continually investing in employee health and wellbeing. The follow-up study revealed that 78% of participants strongly agreed or agreed that their workplace supported health promotion, and this was also a common theme in the focus groups:

'Health is part of the culture now, so it is on the table at all times.' – Health and Wellbeing coordinator, metropolitan, medium, white collar (grant)

Common barriers to workplace capacity reported in the workplace survey included poor access to resources and low support from senior management and leadership to coordinate workplace health and wellbeing. In the workplace survey, only one third of workplaces reported allocating resources to support employee health. Workplace leadership was identified in both the workplace survey and focus groups as influencing the success of the WorkHealth program at various stages of planning and implementation of the WHCs and grant process. These included employee motivation to participate, facilitation of employees to attend activities, encouragement of behaviour change, and future investment in health and wellbeing initiatives.

The importance of competencies for workplace health and wellbeing and who took responsibility for these programs at the workplace also emerged as clear themes in interviews with Health and Wellbeing coordinators and key stakeholders. The majority of respondents completing the workplace survey identified that they held a managerial position (39%) or administration/office manager position (32%), while only 12% identified their job as health and safety. Health and Wellbeing coordinators identified in the most part that they did not have any formal skills relating to the implementation of health and wellbeing programs. Perceptions about required skills sets for this role were varied. Some Health and Wellbeing coordinators felt that only interpersonal skills were required, while others acknowledged the need for more formal training in health promotion and occupational health and safety.

The workplace survey also indicated that 18% of respondents reported using the Healthy Workplace Kit as a capacity building tool to support the implementation of health and wellbeing activities. The majority of these workplaces reported only using the posters. Grant recipients were twice as likely to use the kit compared to workplaces that had only accessed WHCs. Also, as workplace size increased, the kit was more likely to be used. The stakeholder interviews indicated that this resource was thought to be designed for larger white collar workplaces, and the results of the online survey showed that specific industries engaged with particular components of the kit.

5. Maintenance of healthy lifestyle behaviour of workers

Interviews and focus groups indicate that while WorkHealth was thought to have raised awareness through identifying chronic disease risk factors or providing opportunities to improve health, for many participants the program did not result in healthy lifestyle changes that were ongoing. This can be attributed to the complexity of health behaviour and behaviour change models where increased knowledge and awareness on their own do not always lead to a change in health behaviour. These models acknowledge that there are several other environmental and psychological factors that contribute to an individual's ability to improve their lifestyle.

As shown in the information on lifestyle and risk factors in Section 6, the follow-up worker study found that, overall, daily fruit consumption increased and cigarette smoking decreased, while daily vegetable intake and physical activity had not changed and risky alcohol intake and waist circumference were a little worse between the WHC and follow up. Small changes in these results can be attributed to random variation in the collection of data across a large sample, and in most cases WHCs alone did not have an impact on influencing across-the-board lifestyle behaviour changes to improve employee health and wellbeing.

This was supported by a theme in the focus groups and interviews whereby WHCs were not thought to have the ability to change workplace practices to become more health promoting for employees, as illustrated by the following comment:

'You can't say "Here it is, go do it, do it or not" and then walk away, eventually people slip into their old habits. Those things have to keep on evolving and keep on being offered really.' – Focus group, large, blue collar (grant)

6. Reduced risk factors and impact of chronic disease across workforce

At the WHC, workers receive feedback on lifestyle and health risk factors and advice on follow up with their doctor if relevant. The follow-up worker study revealed that improvements were seen only in some lifestyle factors across the whole study group, with some not changing and others a little worse. However, improvements in all lifestyle factors were seen in those who reported being advised to take action and who then took action after their WHC. These findings highlight the importance of giving effective advice about follow up to encourage participation in health and wellbeing programs after risk factors have been identified.

Change in lifestyle factors for all at follow up:

- Inadequate fruit intake decreased by 17%
- Inadequate vegetable intake and inadequate physical activity were similar
- Risky alcohol intake increased by 22%
- Smoking decreased by 25%
- High waist circumference increased by 10%

Change in lifestyle factors for those who reported being advised about a risk factor and who then took action:

- 28% decreased their risky alcohol intake
- 43% increased their physical activity
- 71% decreased their smoking

7. Improved workforce health and productivity

Within the program logic, the long-term aims of WorkHealth are to achieve a:

- 10% reduction in workers at high risk of targeted chronic disease (over five years)
- 5% reduction in compensable workplace injury/illness attributed to targeted lifestyle risk factors (over five years)
- \$60m savings in health costs (per annum)
- 10% reduction in absenteeism (over five years)
- \$44m boost in productivity (per annum)

Given the short-to-medium term nature of this research and evaluation program, not all necessary data to evaluate these productivity aims were collected. Privacy considerations were a main barrier to collecting relevant data for a longitudinal research study. Therefore, it was decided to undertake some modelling, using some of the collected research data relating to participation in the WorkHealth programs and other findings available in the published literature relating to impacts of similar health and wellbeing programs on workplace factors which can impact on productivity. The aim of this research was to forecast reductions in absenteeism, presenteeism and compensable workplace injury/illness, while cost-saving estimates were beyond the scope of this research.

For the 560,000 Victorian workers who underwent a WHC between the start of the program in 2009 and 30 June 2012, a potential reduction in absenteeism of around 11% is predicted within the first two years following the WHCs. As the uptake of the WorkHealth grants and WorkHealth Coach and Life! Taking Action on Diabetes programs has increased over time, for those Victorians participating in the WHCs between 1 January 2012 and 30 June 2012 a reduction of absenteeism of around 15% was forecast. Reductions in claims for compensable workplace injury/illness were forecast at around 3% for all those participating in the WorkHealth program, and around 5% for those participating between 1 January 2012 and 30 June 2012. The most robust findings in the literature relate to sickness absence reductions, whereby about a 25% average reduction in sickness absence has been found in workplaces implementing health promotion programs. There were fewer published studies in the literature measuring the impact of health promotion programs on workplace injury and presenteeism, so there is greater uncertainty in the forecasted reductions for these factors.

This research indicates that the potential impact of WorkHealth on productivity outcomes is strongly dependent on both the effectiveness of the individual program elements and their reach and uptake. The model demonstrated that increasing uptake of the WorkHealth grants and WorkHealth Coach and Life! Taking Action on Diabetes programs even further (to 50% and 30% respectively) has the potential to double the impact on productivity measures of the overall WorkHealth program. Further scenario analyses demonstrated that increasing the effectiveness of the WorkHealth program elements (such as by increasing uptake of the most effective WorkHealth grant activities and encouraging completion of the WorkHealth Coach and Life! Taking Action on Diabetes programs) have the potential to further improve productivity beyond the original targets for WorkHealth.

MAIN CONCLUSIONS AND FUTURE IMPLICATIONS

In this research, outcomes of WorkHealth have been investigated at the level of the worker and the workplace and there are several key messages and implications:

- The WorkHealth program has helped to place employee health and wellbeing and potential impacts of worker safety and productivity on the agenda of many workplaces across Victoria and extend their focus beyond OHS.
- Increased benefits can be achieved through increased participation in the WorkHealth grants and lifestyle programs.
- While almost 600,000 workers have undertaken WHCs, higher-risk workers, eg blue collar occupations, are the most difficult to engage at all stages of the program. A focus in effectively encouraging participation in WHCs, including follow up with a doctor and engagement in health and wellbeing workplace programs, is needed for this group.
- Through WorkHealth there has been a ripple effect of workplaces engaging in a wider range of health and wellbeing programs, such as mental health promotion, than just those which are the main focus of WHCs, suggesting that WorkHealth can have additional benefits to type 2 diabetes, CVD and SNAP risk reduction. This suggests that WorkHealth can have the ability to more broadly influence the take up of health and wellbeing initiatives that are not directly related to CVD and type 2 diabetes by providing a stronger health and wellbeing environment.
- More effective feedback to WHC participants needs to be developed, including specific algorithms that provide standardised recommendations based on an analysis of an individual's data and using this to develop better tailored advice to raise confidence in the WHC findings, increase uptake in doctor follow up and assist in the increased participation in health and wellbeing programs, such as the WorkHealth Coach program.
- While uptake of WorkHealth programs at workplaces has been increasing, especially since the start of 2012, greater support in terms of workplace culture, leadership, resources and competencies is needed, especially in smaller workplaces, to ensure that workplaces are supported to make the transition from only offering OHS programs and policies to also offering health and wellbeing programs to their employees.

RESEARCH GAPS

While this research and evaluation program has been able to investigate many of the short and medium-term impacts of WorkHealth and to undertake modelling for longer-term productivity indicators, there are still several important research gaps. To fill these, the research team has identified some future research projects (in no particular order) to build upon the gains of the current research and evaluation program:

Research to better understand the current results and impacts of the program:

- A focused evaluation of the WorkHealth grants program using a more targeted sampling framework, which would enable an exploration of the program to understand in more detail the impacts and outcomes of health promotion activities in the workplace.
- A follow-up study of WorkHealth Coach participants to better understand the specific benefits of this program and help to inform more effective recruitment into this program in the future.
- A longer-term follow up of the longitudinal study cohort to better evaluate medium and longer-term outcomes of WorkHealth and their sustainability.
- Continued analysis of the WHC data, especially in relation to changes in penetration rates for industries and occupational groups, to better understand targeting workplace health programs across Victoria.

Research to guide ongoing improvements of the program:

- Longer-term follow up of a sample of participating workplaces to collect empirical data on changes in workplace productivity measures to confirm the modelling findings.
- Study of the blue collar worker uptake of WHCs and WorkHealth programs, in particular to explore the drivers of engagement in workplace health programs by blue collar industries that go beyond the responsibilities of OHS.
- Development and testing of more specific risk algorithms to better tailor advice to WHC participants that could be developed into a computer program with printout, and compared with routine practice.
- Economic analysis for long-term financial targets using findings from the current research and evaluation program.
- Research to better understand the integration between OHS and health promotion as many workplaces are primarily concerned with adhering to OHS requirements rather than developing their capacity to implement health promotion activities for their employees. An intervention study which explores these drivers primarily, including perceived employer responsibility for health promotion and its fit with OHS, is needed to understand better how workplaces can be supported to make this shift.
- Consider an intervention study using randomised approach of workers and evidence based interventions such as WorkHealth Coach and other lifestyle risk factor programs to ascertain what works most effectively and sustainably in the workforce setting.

WORKPLACE CASE STUDY: MANIPLEX¹

To help demonstrate the implications of these research findings on Victorian workplaces and for individual employees, we have included a workplace case study to illustrate the journey of a workplace through their WHCs and access of a grant.

Maniplex is a large workplace situated in rural Victoria employing over 200 workers in the manufacturing industry. 51,367 manufacturing industry workers had a WorkHealth check (WHC) between April 2009 and April 2012, which accounts for a 17% penetration rate, below the average for the state. WHC data indicated that about one-third of male and one-fifth of female workers in this industry were assessed as having a high risk of developing type 2 diabetes, higher than the Victorian average. However, fewer than 5% of workers had a high risk of developing heart disease, which was comparable to the Victorian average.

Over the period before Maniplex signed up for WHCs, they had a high number of WorkCover claims and absenteeism. As well as enhancing OHS policies and programs, Maniplex considered it would be beneficial to provide employees with an opportunity to get more involved with their own health. Before the WorkHealth program, they had not engaged in any health and wellbeing activities.

At first, employees were unsure about the idea of health checks at work. They were worried about the confidentiality of results, which they believed may influence their job security and possibly downplay existing OHS programs, so management spent a significant amount of time promoting the program and allaying concerns. In the end, employee participation was high, which made them eligible for a Healthy Workplace grant. Employee participation in the WHCs was driven by their quick and convenient nature but also because it allowed employees to get a better idea about their health status. Focus group participants acknowledged that participation in the WorkHealth program was linked to their productivity and absenteeism rates.

'I suppose if they [employer] look after you, you're not going to have days off'

After the checks, some employees reported making health behaviour changes like reducing their alcohol intake while others reflected that while the WHCs raised awareness, unfortunately they hadn't made any personal changes at all. It was noted that employees who probably were at risk of chronic disease were less likely to participate in the checks. Employees reported that this was because they already knew they were unhealthy or they considered themselves too old to worry about their health.

Maniplex had identified mental health safety as an issue due to the overtime required by many of its workers and consequential job stress, but the profile report generated from the WHCs provided management with a good insight into other health issues related to chronic diseases in their employees, in particular the high smoking rates and high rates of overweight and obesity. Smoking rates in the manufacturing industry are higher than the Victorian average but lifestyle risk factors associated with diet were the same as the Victorian average. The health and wellbeing coordinator stated:

'It probably jolted us into looking at the fact – how we operate in terms of what food we provide at company functions and just the way we are contributing to the problem and maybe just stop that. And probably one of the biggest things that probably came along for that, was the fact that we were offered a grant'

¹ Pseudonym

The Healthy Workplace grant was used to fund an exercise program for a small group of 15 employees at the local gym and the purchase of fruit boxes. Participation in the gym classes was difficult because of shift work, which automatically excluded many employees. However, the program did encourage a good relationship with the local gym provider, which has encouraged better membership prices for employees. The Healthy Workplace kit was also used to help implement health and wellbeing activities, but management felt that some of the content wasn't relevant to a blue collar workplace and so didn't engage strongly with all the components.

After the grant activities were completed, employees suggested that it was still the employer's responsibility first and foremost to ensure a safe workplace but that a healthy working environment was also beneficial. They were interested in further changes in their workplace including smoking bans onsite and healthier food in the canteen. Management at Maniple have observed positive changes after this holistic approach to their employee's safety and health and wellbeing.

'We've got these programs in place, done the WorkHealth checks, we've installed preventative programs for preventing injuries and now we're down to about three standard WorkCover claims a year and we're getting people back to work a lot faster'

RESEARCH REPORTS

1. Gwini S, Botlero R, Roberts M and Sim M. (2012). 500,000 WorkHealth Check Statistical Report. WorkSafe Victoria, Melbourne.
2. Kelsall H, Botlero R, Mohebbi M and Sim M. (2012). WorkHealth Check Follow Up Study. WorkSafe Victoria, Melbourne.
3. Joss N, Wright C, Keleher H and Sim M. (2012). Impact Evaluation of the WorkHealth Program. WorkSafe Victoria, Melbourne.
4. Peeters A, Sim M and Pasupathi K. (2012). Modelling the Impact of the WorkHealth Program. WorkSafe Victoria, Melbourne.
5. Joss N, Keleher H, Sim M and Kelsall H. (2011). Process Evaluation of the WorkHealth Program. WorkSafe Victoria, Melbourne.

