

# Rebuilding Canterbury, healthy and safe

EVALUATION OF WORKSAFE'S CANTERBURY REBUILD  
PROGRAMME

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NOVEMBER 2017

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#### **ACKNOWLEDGEMENTS**

WorkSafe New Zealand would like to acknowledge the following parties for their support of and time spent on the project:

- The participants in Christchurch, Wellington and Auckland
- The NSW inspectors who gave their time.

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# EXECUTIVE SUMMARY

Overall, the Canterbury Rebuild programme was implemented as intended and has shown achievement of most of its short- and medium-term outcomes.

All activities the programme had planned to undertake were implemented as intended, with the exception of work with at risk workers. There were some initiatives developed for at risk workers that were not implemented as originally intended and this had a negative impact on the achievement of outcomes reliant on this work-stream.

## Achieved outcomes

The evaluation found the programme had provided the inspectorate with the necessary tools to engage, educate and enforce. The NSW inspector secondment programme was particularly important in building the tools and guidance required and this also benefited construction inspectors nationally as the tools were rolled out.

There was evidence that industry businesses are aware of their obligations and the consequences of not meeting these. The HSAB survey results showed the Canterbury construction firms were much more confident in their level of awareness of health and safety obligations and how to meet them than construction firms in the rest of New Zealand, although over time this gap is closing.

Industry workers also appear to be more aware of their rights and obligations in Canterbury than in the rest of New Zealand. Interviewees attributed this to the Rebuild programme and the enforcement approach taken, as well as the Charter, suggesting the programme has had some success in improving the level during the Rebuild.

All interviewed commented on the improved relationships and communication across the Rebuild, and cited the Charter as playing a large role in this. The Charter had provided the opportunity for a number of parties with different interests in the Rebuild to meet and discuss issues in an open and supportive environment.

The Charter had also supported industry members to take a leadership role in health and safety during the Rebuild. This was seen as one of the key benefits of the Charter by industry, and was a deliberate effort on WorkSafe's part.

There have been zero fatalities on a Canterbury construction site since 1 January 2013, when the Programme started<sup>1</sup>. The Programme was funded and given priority by the Department of Labour, MBIE and WorkSafe in part because based on the estimated numbers of workers involved in the Canterbury rebuild and the Canterbury construction industry's health and safety record, if then current performance had continued, there could have been:

- one to two construction fatalities per year of the rebuild;
- ill health and fatalities through exposure to workplace contaminants
- 600,000 working days lost through workplace injury and illness; and
- \$80 million in ACC entitlements.

WorkSafe engaged MartinJenkins to undertake a cost-benefit analysis and estimate the impact on injuries of the Programme. MartinJenkins concluded that over a four year period, the Programme could have prevented:

<sup>1</sup> There was one construction fatality in Christchurch which occurred prior to the start of the programme.

- Up to 1 fatality
- 3 to 6 severe injuries, and
- 50 to 100 non-severe injuries.

Taken together, these injuries avoided translate in to a benefit-cost ratio of between 3:1 and 6:1 for the Programme. This is consistent with the returns seen for similar programmes featuring a combination of education, enforcement and partnership with industry in NZ, Australia, and other jurisdictions.

It is difficult to predict what would have happened without WorkSafe's programme and this is highlighted by the difference in the Department of Labour and Martin Jenkins estimations.

## **Mixed results**

The programme has also achieved a number of outcomes; however, this was variable across the sector. These are discussed below.

***Getting industry members to sign up to the Charter*** – the Charter was one way the programme engaged and educated industry during the Rebuild programme. It had achieved representative coverage of the types of businesses in the sector. Initially the number of sub-trades and SMEs in the Charter was lower than large enterprises, more recently this has changed with more SMEs becoming signatories. If equal representation is the goal it might be necessary to think of other ways of engaging SMEs.

***Getting industry businesses to understand what makes good health and safety practices and the benefits of good health and safety*** – Charter signatories had a good understanding of what makes good health and safety. Those outside the Charter and particularly sub-trades and SMEs were less clear about what constitutes good practice, and the benefits of it.

***Helping industry workers understand how they can contribute to, and manage their own health and safety*** – workers in both the HSAB survey and qualitative interviews were confident they understood their rights and obligations; however, they were less clear on how to contribute to health and safety at work, or manage their own health and safety. As above, workers in larger businesses who participated in the evaluation appeared to have more certainty about their rights and responsibilities than those in sub-trades and SMEs, suggesting a focus on the best way to educate and engage sub-trades and SMEs would benefit the programme.

***Supporting industry workers and businesses to be aware of and focus on work-related health issues during the Rebuild*** – there was evidence of a focus on exposure to dust and asbestos during the Rebuild, and some awareness of wider issues. This focus and understanding was supported by the Occupational Health van project, which was well-received by industry members who had been involved. However, there is still room for a greater focus on other work-related health issues. Psychosocial impacts and fatigue were areas raised by industry as of concern, however, it appeared it was mainly the larger construction companies were addressing these concerns.

***Supporting inspectors to educate, engage and enforce appropriately and consistently in the right areas*** – those engaged in commercial construction considered they had experienced a consistent approach from WorkSafe. There was also a common perception that WorkSafe had focussed on commercial construction and less so on residential construction. However, WorkSafe's assessment data demonstrates that residential construction had also been a focus and there had been equal activity in this area.

**Engagement** – Employers and workers across the industry wanted more engagement with WorkSafe, and felt the approach taken by the NSW inspectors and the Charter events made WorkSafe more accessible and reduced some of the trepidation they felt in talking to inspectors.

**Health and Safety Tools** – Some industry members were using the Charter to improve their health and safety performance, and reported that the tools provided on the site were pitched correctly. However, others were not using the Charter tools. In the future greater engagement with these businesses about the utility of these tools would be beneficial. The Charter Officer role was an initiative the Charter had implemented and was received well by industry. Its success was in part due to the fact that the officer role was seen as less intimidating than having an inspector on site.

**Large businesses, sub-trades and SME's** – Some businesses were implementing good health and safety practice during the Rebuild, but this was particularly concentrated in larger firms and Charter members. However, there were still a number of businesses who were less clear on what good practice was and how to implement it, particularly amongst sub-trades and SMEs.

**Workers** – As with businesses, some industry workers were practising good health and safety practice during the Rebuild, but there is still room for improvement and the need to reach a wider audience. As can be expected, where businesses reported less health and safety practice, workers in those businesses also reported less, this was particularly the case for sub-trades and SMEs and non-Charter members. These findings suggest that sub-trades, SMEs and non-Charter members could be a focus of future efforts to improve health and safety in Canterbury construction.

## Success factors

There were a number of factors that supported the successful achievement of outcomes. These factors included:

- The programme having agility in a post-disaster context.
- Drawing together the different work-streams into one programme, including collaboration with frontline staff.
- Having experienced inspectors who can educate industry on construction health and safety concerns.
- Educating industry through a range of educational tools.
- Enabling senior leaders in the industry to lead the Charter and the provision of WorkSafe secretariat support was crucial to this success.
- The use of worker representatives to report on health and safety and act as a link between workers and management.

## Focus going forward

The evaluation also identified areas that WorkSafe could focus on going forward and offers an opportunity to reflect on how various achievements and the resulting benefits might be replicated elsewhere. These were:

- Planning for the construction programme to ensure that WorkSafe continues its support for a healthy and safe Rebuild and maintains the improved practice in Canterbury, whilst focussing on emerging construction areas – such as the Auckland Unitary plan and rebuild work in Kaikoura. It should also consider whether further evaluation in Canterbury is required at a later date.
- Improving the linkages between programme staff and the inspectorate, to ensure that all rebuild work is mutually supportive, while also ensuring Rebuild work is connected to the wider construction programme and WorkSafe's strategic foci.

- Participants in the evaluation stressed the importance of a visible inspectorate and their role in reinforcing improvements in health and safety practice. There was a perception that the inspectorate was less visible following the conclusion of the NSW inspectorate programme, and participants felt this had contributed to some slippage in standards.
- The programme should consider how to systematically use multiple education and engagement tools to ensure it is meeting the needs of the wider industry; in particular it should focus on reaching the sub-trades and SMEs, who have stated they have less resource available to participate in events and engage with the Charter.
- Targeting foreman and site supervisors is one means to ensure that the progress made with senior managers and principal contractors is also made on the ground with workers. In particular, the programme should consider targeting education resources and events at foremen and site supervisors who are in the position of communicating between senior management and staff but may not have the skills needed to translate messages between these groups.
- There was a perception in Canterbury that the enforcement of standards was less prevalent in the residential sector; however, WorkSafe's assessment data does not confirm this perception. There was activity in the residential sector during this time period.
- A number of industry members discussed the differing requirements for the PMOs and larger construction companies, and suggested that a lot of time could be saved if there was a consistent approach taken to Health and Safety on all sites, and in qualifying to tender for work.



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# 1.0 Introduction

## IN THIS SECTION:

- 1.1 Background
- 1.2 Method
- 1.3 Introduction

## 1.1 Background

In 2010 and 2011, a series of major earthquakes struck the Canterbury region with devastating effect. 185 people lost their lives on 22 February 2011 and the greater Christchurch area<sup>2</sup> suffered extensive damage to buildings and infrastructure. The construction activity over the following decade has been and will be unprecedented for New Zealand: the Christchurch CBD will be completely rebuilt following the demolition or partial demolition of 1,600 buildings, much of Christchurch's horizontal infrastructure has been repaired and made more resilient (including roads, sewerage and water pipes), and residential construction will see over 155,000 properties repaired and over 18,000 properties completely rebuilt.

Construction in New Zealand is a high-risk area for serious workplace accidents; and, in the absence of any changes, the dramatic increase in building activity was expected to be accompanied by fatalities, serious harm, long-term ill-health and considerable ACC liabilities. At the outset of the programme, there was evidence of a significant increase in volumes of ACC claims and serious harm incidents in the construction industry. Beyond the direct risks associated with an increase in activity, additional risks to construction workers were present in Canterbury from:

- an influx of workers from potentially high-risk populations, e.g. migrant, inexperienced, and older workers,
- exposure to hazardous substances, including for example asbestos from affected buildings; and,
- high-risk construction activity, including working from heights and mobile plant.

### WorkSafe's response in Canterbury

The Department of Labour (DoL), The Ministry of Business, Innovation and Employment (MBIE) and more recently WorkSafe responded to the workplace challenges in Canterbury following the earthquakes. Initially, WorkSafe's response was delivered through its local Christchurch office, with staff responding to priority issues as well as they could within existing resourcing. As the recovery and rebuild took shape MBIE established a dedicated Canterbury Rebuild Health & Safety Programme. This programme has, and is, being delivered by teams of people whose structure have changed a number of times. The original DoL response was driven by the Christchurch inspectorate, with some support from head office. Currently, the inspectorate delivering the assessment work is part of the South Island Inspectorate. A dedicated construction programme team is part of WorkSafe's Programme Management Office. There have been a number of other structures employed to deliver WorkSafe's response to rebuild needs including the employment of a Canterbury Programme Director who had oversight of the programme as well as the inspectorate team. This programme has been delivered during a period of significant structural change where there have been, at different times, three organisations responsible for the regulation of work-related health and safety in New Zealand.

### Additional funding for WorkSafe

In July 2013, Cabinet noted that "the current initiatives being supported by MBIE relating specifically to the Canterbury rebuild have not yet achieved key workplace health and safety objectives."<sup>3</sup> And preliminary safety performance data was indicating a significant increase in both serious harm notifications and a sharp increase in ACC claims. Cabinet agreed that a Canterbury recovery programme and more inspectors were required; with intensive activity (including training and development) to be applied from July 2013-2015 and levelling off after that. Cabinet noted the allocation of an additional \$10.78m over four years

<sup>2</sup> Greater Christchurch includes the Christchurch City and the Waimakariri and Selwyn District Councils.

<sup>3</sup> CAB Min (13) 24/10 Improving Health and Safety at work: Overview.

to support WorkSafe's Canterbury rebuild initiatives. The stated objective of the new funding was to make a significant difference to health and safety risks and outcomes in Canterbury.

## WorkSafe's Canterbury Rebuild programme

The programme can be divided into the following key work-streams:

### 1. WORKING WITH INDUSTRY

In addition to being members of a number of Canterbury construction groups focused on health and safety, MBIE/WorkSafe has focused on developing a strategic alliance with the construction industry through the Canterbury Rebuild Safety Charter – a set of self-regulatory standards governing ten key risk areas for construction. WorkSafe's objective is to use the Charter to lift the standard of health and safety practices across the rebuild. With the launch of the Charter in July 2013, the initial focus was to set up the governance and working group structures and developing a work programme. Following this, the work programme has focused on attracting and retaining committed signatories, supporting signatories to measure and improve their Charter performance, supporting leadership development at all levels of signatories, and promoting worker participation in health and safety.

### 2. STRENGTHENING THE INSPECTORATE

The assessment team expanded to deal with the increase in construction activity. Two senior inspectors were relocated to Canterbury and additional funding was available for training and recruiting new trainees. To support the trainees, experienced construction assessors were seconded from NSW WorkCover – providing an increase in capacity from November 2013 to March 2016 and longer-term benefits from mentoring and up-skilling of local staff.

### 3. TARGETING HIGH RISKS

Through an assessment of the current rebuild activity, and expectations of the future rebuild WorkSafe identified the following high risks for the Canterbury rebuild: asbestos, working at heights, mobile and fixed plant, excavation and demolition work, fatigue, electricity on small sites, and hand-held tools. WorkSafe's activities include producing guidance material, holding industry briefings and training sessions, and ensuring the Inspectorate is proactively targeting these risks. With respect to asbestos, WorkSafe has raised awareness (including hosting a conference), producing guidance material, and holding certificate of competency workshops.

### 4. TARGETING WORK-RELATED HEALTH

Work-related health issues that WorkSafe is applying its resources to in Canterbury include dust, vibration, noise and a range of psycho-social risks including fatigue and alcohol and other drugs. WorkSafe produced guidance material, held industry briefings to raise awareness, funded a research project into exposure to dust/silica in construction, and ensured the activities of the Inspectorate were aligned with these risks.

### 5. IMPROVING THE HEALTH AND SAFETY OF AT RISK WORKERS

The significant increase in the workforce required over a short period of time will likely see the construction workforce increased by the use of at-risk workers including labour on hire, new workers, young workers, immigrants and workers with poor literacy. WorkSafe previously had a position in the programme team focused on developing intelligence on this population, establishing cross-agency linkages (with Labour, Immigration, IRD, and community groups) and will also ensure its communications material is adequately tailored.

## 1.2 Method

The evaluation involved a documentation review; interviews and focus groups with industry members, WorkSafe staff, and a number of inspectors from New South Wales; and, an analysis of data from WorkSafe's Health and Safety Attitudes and Behaviour (HSAB) survey. WorkSafe also commissioned a Cost Benefit Analysis (CBA) which quantifies the impact of WorkSafe's Canterbury Rebuild Programme. See Appendix A for a detailed description of the methods used.

## 1.3 Introduction

### Purpose of evaluation

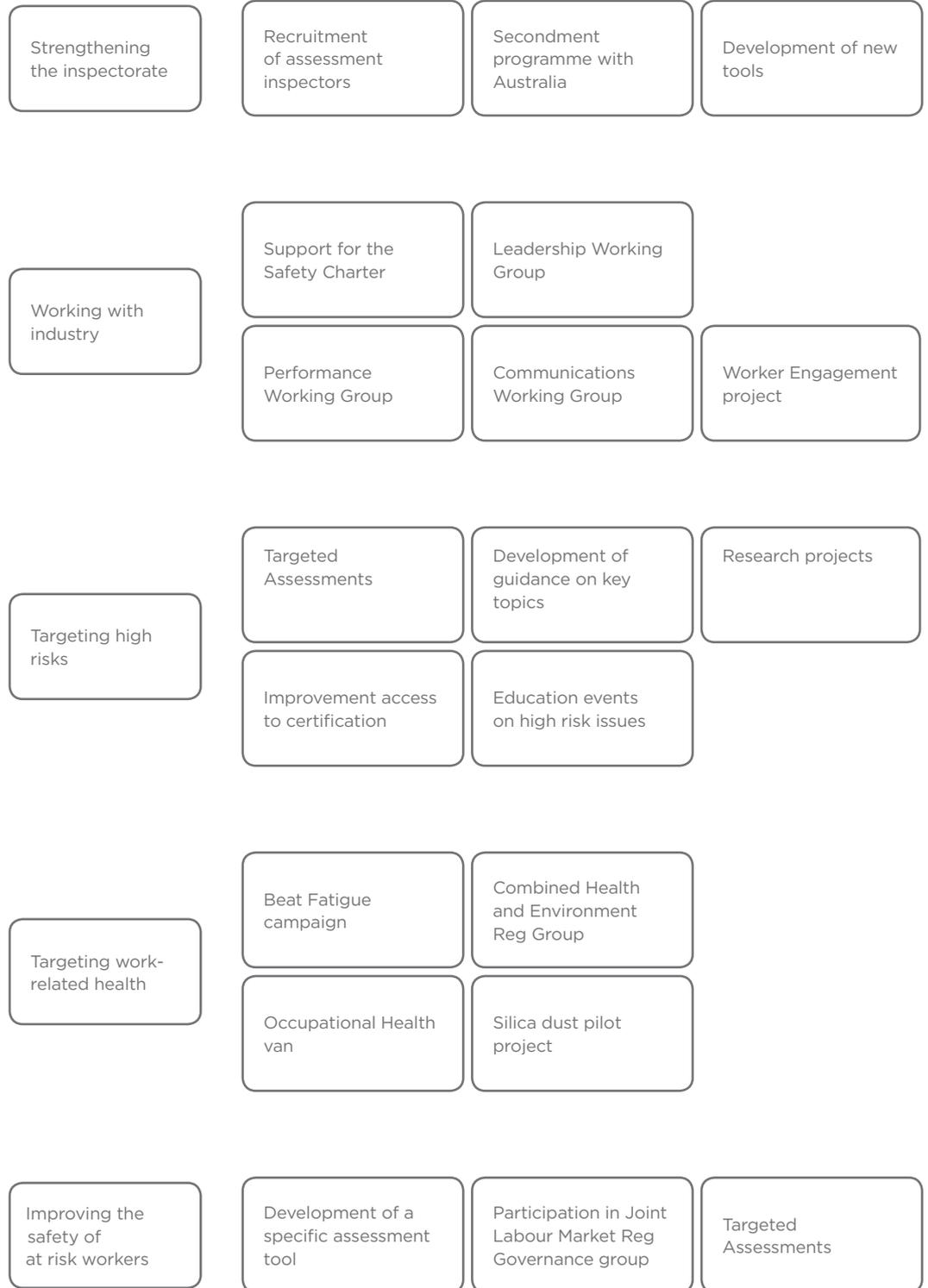
This evaluation is intended to inform the next phase of WorkSafe's focus on the Canterbury Rebuild and provide information for future interventions. The evaluation covered both the process and outcomes of the programme, addressed what the programme has achieved and how, and identified lessons that can be learnt. It also considered any unintended outcomes, both positive and negative, of the programme.

### Key Evaluation Questions

There are three key evaluation questions for this evaluation. They are:

1. Was the programme implemented as intended?
2. Has the programme achieved its objectives?
3. Where should WorkSafe focus its future efforts?

Activities

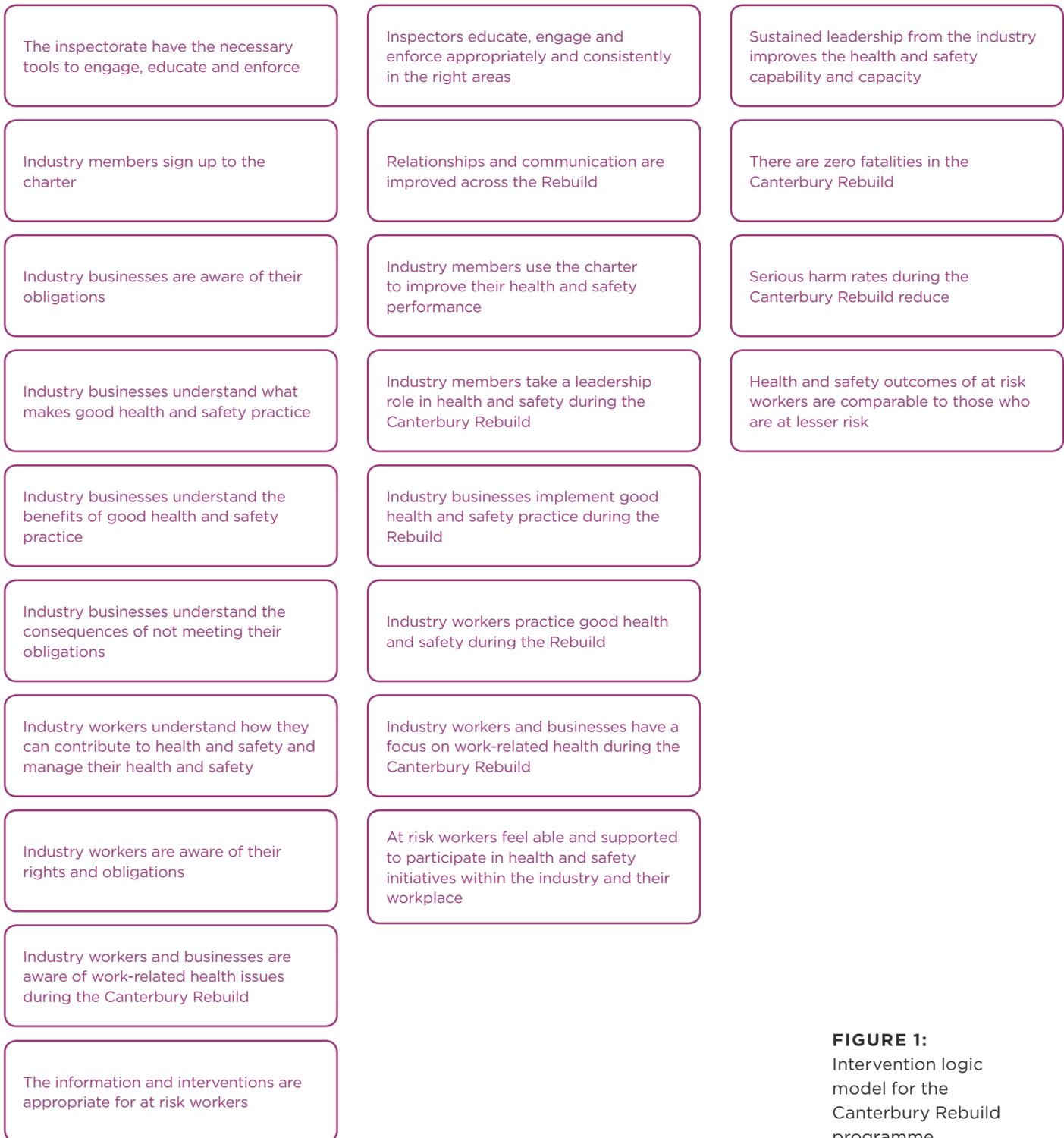


The Canterbury Rebuild will mean an unprecedented boom in the Construction and related industries in Canterbury. Increased activity is correlated with increases in workplace injuries and fatalities.

**Short-term outcomes**

**Medium-term outcomes**

**Long-term outcomes**



**FIGURE 1:** Intervention logic model for the Canterbury Rebuild programme



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## 2.0 Process

### IN THIS SECTION:

- 2.1 What elements of the programme were implemented as intended?
- 2.2 What elements of the programme were implemented differently to intended?

## 2.1 What elements of the programme were implemented as intended

The programme planning had some clear objectives set at the start of the programme. However, due to the nature of working in and responding to a post-disaster environment, there was also flexibility built into the programme. As such, the programme evolved over its duration and continues to evolve as the nature and volume of the construction activity in the Canterbury region changes.

### Strengthening the inspectorate

The Strengthening the Inspectorate work-stream involved two key projects: the first being the secondment programme with the inspectors from WorkCover New South Wales and across New Zealand; the second being the development of new tools.

#### NEW SOUTH WALES SECONDMENT PROGRAMME

The New South Wales secondment programme was established by the Programme Director to address a skill and capacity deficit in the existing inspectorate in Christchurch at the time. The secondment programme required a quick recruitment and selection process, followed by intensive training to enable the inspectors to obtain warrants to enforce in New Zealand.

Once warranted, the inspectors came in staggered pairs, so that each inspector overlapped with one inspector from the previous term for two weeks, and then one from the next term for two weeks. This was to ensure a smooth transition between inspectors. The inspectors were not expected to undertake any data entry during their time in New Zealand. Instead, a Support Officer was allocated to this task, which was seen as crucial to the success of the inspectors undertaking a high number of assessments, and providing mentoring for the newer Christchurch inspectors. The NSW inspectors undertook a much higher number of assessment visits than anticipated. The programme had set an assessment target of 1,640 for the 2014/15 year<sup>4</sup>. The actual number of assessments undertaken during this period was 2,881, which resulted in 1,926 notices being issued.

Overall, the inspectorate secondment programme was implemented as intended. There were some early issues with IT, meaning delays in inspectors being able to access the network, cell-phones, and email. However, once these were resolved, the programme ran smoothly, with all those involved in it happy with the initiative.

One of the key success factors reported by multiple parties was the pastoral care provided by the Support Officer dedicated to the secondment programme. The Support Officer was viewed as having gone well above and beyond what was expected in terms of emotional and extracurricular support to the inspectors. Many of the inspectors commented that they would probably not have returned as much (some up to four times) if they had not received the support as it was difficult to be in a post-disaster zone and away from their families.

#### DEVELOPMENT OF NEW TOOLS

The NSW inspectors chosen for the secondment programme brought a wealth of knowledge and experience with them. During the Rebuild, it was determined that there was a gap in technical material for both inspectors and the industry to use to guide practice. The inspectors worked with programme staff and the Guidance and Standards team to develop and produce a number of fact sheets and information materials, which were made available to inspectors and industry nationally. This required a lot of work and collaboration from the parties involved to produce the guidance in a timely manner.

<sup>4</sup> Internal Memo (16 June 2014).

The development of new tools was viewed as having gone to plan by staff involved in the process. It was viewed as a particularly strong example of collaborative work between national office and regional staff. Those working in the industry had been pleased to see more information and guidance coming out of WorkSafe and had found the tools useful in their health and safety planning and standard setting.

## Working with industry

### **SUPPORT FOR THE CHARTER**

Support work for the Charter was a large part of the Canterbury Rebuild programme work. While the Charter was led by industry, WorkSafe offered secretariat support for the Steering Group, as well as sitting on the Group. WorkSafe supported the Steering Group through providing the time of a Support officer, a Communications advisor and the Programme Manager as well as membership on the group itself.

The Charter was viewed by interviewees as crucial to the improvements seen in the Health and Safety practice during the Rebuild. Signatories to the Charter said that the Charter had provided them with the opportunity to build relationships with other industry members, WorkSafe and other key stakeholders to create a unified front on health and safety.

### **SUPPORT FOR THE THREE WORKING GROUPS**

The programme staff also provided support for the three working groups – Leadership, Communication, and Performance. Like the Charter Steering Group, the working groups were led by industry members but received secretariat support from the programme and had WorkSafe membership on the groups.

The working groups focus areas were based on the early engagement undertaken with industry by the programme staff. It was agreed that these were three areas that required focus to make a step change within the construction industry. The groups were implemented with a real focus on getting work done while leaving the governance work to the Steering Group.

The working groups were implemented as intended, and were seen as providing a clear structure for how the work of the Charter should be undertaken. At the time of the evaluation, the working groups had been reviewed by the Steering Group and they were set to be consolidated into one working group as the Steering Group considered it more efficient whilst still being viable for the work required.

### **WORKER ENGAGEMENT PROJECT**

Through involvement of the CTU in the Charter, a focus on worker engagement emerged. The Charter hired a Charter Officer with the aim of getting workers more engaged. The Charter Officer began by undertaking an engagement and research project with workers on sites around greater Christchurch to understand the key health and safety issues for the Charter to focus on when engaging workers. The project spoke to 893 individuals and received completed surveys back from 204 individuals. This meant the work on worker engagement was driven by what industry saw as the issues, and gave it a grounded approach that was appreciated by those who had been contacted by the Charter Officer.

Out of this exercise, a number of projects were formed. In particular, the Charter produced guidance on how to engage with workers and the purpose of Health and Safety Reps; a Tidy Sites campaign that involved a competition for the tidiest site, but also provided an opportunity to engage with industry about body stressing; and a Charter event aimed at Health and Safety Representatives

The interviews with workers suggested that the Charter and programme could carry out further engagement with workers. Amongst those workers who had interacted with the Charter Officer there was appreciation of having an opportunity to discuss their concerns and ask questions in a less formal setting than an assessment or investigation visit with an inspector.

## Targeting high risks

### TARGETED ASSESSMENTS

As part of ensuring that high risk work being undertaken had the support of WorkSafe, and where needed, was held to account, WorkSafe inspectors were given specific geographical areas, and specific aspects of construction to assess. The decision of which geographical area to focus on was made by an Assessment Manager who considered the stage of the Rebuild i.e. the nature of the work which required assessment and the geographic location. Initially, there was a lot of work in demolition and on horizontal infrastructure in the central business district. Consequently, much of the Inspectors' focus was in the CBD. As the nature of the Rebuild changed, the Assessment Manager shifted inspectorate focus and location.

This approach was viewed as successful by all WorkSafe staff and industry, with industry members saying there was a notable presence of WorkSafe in the CBD, but less of a presence in the suburbs and residential parts of the Rebuild.

### EDUCATION EVENTS ON HIGH RISK ISSUES

The programme supported a number of education events, particularly through the Charter. The programme planned to support and contribute to trade breakfasts, Charter events (which involved talks from leaders in the field on a specified topic), and then some ad hoc events. This was implemented as planned.

Trade breakfasts were particularly successful, and over the course of programme, demand for the events had increased to the point where a waitlist was required due to the high level of interest in attending. Trade breakfasts involve three to four short talks on a specific focus area (normally 15 minutes) accompanied by a breakfast. Industry members said they enjoyed the trade breakfasts as it provided a time to interact with WorkSafe inspectors and staff, as well as others in the industry, in a relaxed setting. However, it was clear a lot of contractors were attending the events but not necessarily taking their staff. Workers were interested in attending these events, and so there is scope to target some of the future trade breakfasts to workers.

Charter events take place following the Steering Group meetings. The events involve a welcome for new signatories; an update on the work being undertaken by the Charter; a celebration of key successes; the signing of the Charter by new signatories (if applicable); a keynote speaker (which had been up to three in the past); accompanied by drinks and nibbles. More recently, the Charter has acknowledged Charter Champions - workers and site managers who have made a significant contribution to health and safety on site, by awarding a pin at the event. Charter events were also well-regarded by industry members. Like the trade breakfasts, interviewees said that the chance to discuss issues with inspectors and others in the industry in an informal setting was particularly valuable to them. Like the trade breakfasts, it was clear that these events were more likely to be attended by Managers and contractors, and workers (including foremen) commented that they were either not invited, or that it seemed as though the events were for not for them. There was interest from workers in attending trade breakfasts and this could be considered for future Charter events.

## **RESEARCH PROJECTS**

The Rebuild programme commissioned a number of research projects to support the work being undertaken. This included: a pilot study looking at exposure to silica dust; research into leadership in the Rebuild; a survey of Charter members; and, research into worker engagement in Canterbury construction.

The Silica Dust project results were then used in the Occupational Health Van project, which is discussed in greater detail below. Industry members appreciated the opportunity to hear about the results of the research and some workers commented that there had been a shift toward using more vacuums on site, rather than sweeping dust. They also thought their employers had become more focused on dust on site during the Rebuild, which suggests that the research had affected the practice of some contractors in the Rebuild.

## Targeting work-related health

### **BEAT FATIGUE CAMPAIGN**

The Beat Fatigue campaign involved the distribution of water bottles with messaging about fatigue to workers on sites across the Rebuild as a way to engage with the workers. This initiative was supported by ACC. For those who had received a water bottle, the campaign had provided an opportunity to engage with WorkSafe in a positive way. It was seen as a good reminder to keep hydrated, and workers appreciated getting something from a government agency that recognised their needs when working. It had built a degree of goodwill with those who had received the water and was seen as an effective tool to engage with workers. Inspectors also drove home the message about providing basic necessities, such as water and toilet facilities, during their inspections, which reinforced the campaign messages.

Workers interviewed did not discuss any changes made following the campaign. However, programme staff received feedback from both workers and employers involved that the programme had spurred employers to install large water containers on site so that staff had ready access to fresh water. Workers said they had kept the bottles for a number of months, and the bottles served as a reminder for them to go and fill their bottles regularly. Finally, at least one of the larger companies had taken the idea and provided company-branded bottles with messaging for all staff after the campaign. All of these interventions suggest that the campaign had an impact on practice in the industry.

### **OCCUPATIONAL HEALTH VAN**

The Occupational Health van provided the opportunity for workers, on sites who registered, to meet with and discuss health issues with Occupational Health nurses, inspectors and programme staff. The Project Manager informed contractors of the van project and the times when the van would be available and then took registrations on a first-come, first-served basis. When on site, the van provided an opportunity to engage with workers on-site and in a non-enforcement setting. The nurses would offer blood pressure checks, there would be food on offer, and the inspectors and programme staff would focus on a specific topic. The first van series focussed on respiratory issues and dust, and discussed the results of the Silica Dust pilot project. Other series focused on hydration, and fatigue.

The van was well-received by industry. It was an effective tool for engaging with workers as it took the information to the sites they were working on, provided them with information, and did so in a less formal setting than an assessment or investigation visit.

### **MEMBER OF THE COMBINED HEALTH AND ENVIRONMENT REGULATORY GROUP**

Membership of this group was predominantly held by the Programme Director and appeared to wane following the disestablishment of this role, but was intermittently attended by the Programme's Project Manager and a local Assessment Manager. It was an opportunity to hear about other initiatives occurring in Canterbury, and ensure the opportunity to prevent duplication of effort; however, there was a feeling that the purpose of the group had become less clear and thus when prioritising work, it was seen as lesser of a priority.

### **MEMBER OF THE ALCOHOL AND OTHER DRUGS CONSTRUCTION WORKING GROUP**

Membership of this group was maintained by the Project Manager. This involved regular attendance at the meeting and collaboration of initiatives aimed at highlighting impairment and its risk to safety on site. The work also fed into one of the Occupational Health van runs that focussed on alcohol impairment and involved messaging to workers on bottles of water.

## **2.2 What elements of the programme were implemented differently to intended?**

The evaluation found one area that was implemented differently to what was intended. This is discussed below.

### **Improving the safety of at risk workers**

#### **DEVELOPMENT OF A SPECIFIC TOOL**

A specific audit tool for assessing the safety of at risk (and more specifically migrant) workers had been developed as part of the programme. The tool involves a number of questions that inspectors can ask both employers and employees to collect data on and understand the health and safety management system on a site where migrants are employed, and also how workers feel health and safety is practised on site. The tool was used on a small number of joint operations with the Labour Inspectorate and Immigration, and also on a number of joint visits. However, the inspectors interviewed reported they took a more general approach to at risk workers when undertaking assessments, so there is room for understanding why it wasn't used and what benefits could be accrued from using the tool.

#### **DEVELOPMENT OF A GUIDE ON WORKERS' RIGHTS AND RESPONSIBILITIES**

A guide for migrant workers was developed<sup>5</sup> and then developed further into being a guide for all workers<sup>6</sup>, but was only produced in English. However, at the time of writing, WorkSafe had built on the work initiated by the Canterbury Rebuild and translated the guides on workers' rights and responsibilities into five other languages<sup>7</sup>.

I'd say it wasn't a focus, but it was something that came up during site visits, especially when I was looking at the city centre. A lot of young workers there, a lot of small companies popping up for different trades and whatnot.

INSPECTOR

<sup>5</sup> See: [www.worksafe.govt.nz/worksafe/information-guidance/all-guidance-items/migrant-construction-workers-in-new-zealand-your-health-and-safety-rights](http://www.worksafe.govt.nz/worksafe/information-guidance/all-guidance-items/migrant-construction-workers-in-new-zealand-your-health-and-safety-rights)

<sup>6</sup> See: [www.worksafe.govt.nz/worksafe/information-guidance/all-guidance-items/construction-workers-your-health-and-safety-rights](http://www.worksafe.govt.nz/worksafe/information-guidance/all-guidance-items/construction-workers-your-health-and-safety-rights)

<sup>7</sup> See: [www.worksafe.govt.nz/worksafe/information-guidance/all-guidance-items/hswa-fact-sheets/workers-rights](http://www.worksafe.govt.nz/worksafe/information-guidance/all-guidance-items/hswa-fact-sheets/workers-rights)

### **PARTICIPATION IN THE JOINT LABOUR MARKET REGULATION GOVERNANCE GROUP**

While there had been some early involvement in this group, attendance at the group was not prioritised by the Programme Director due to the organisations involved developing different priority areas. Interviewees discussed a small number of joint operations that ran with the Labour Inspectorate at the Ministry of Business, Innovation and Employment (MBIE) and Immigration NZ. However, it appears little else came from participation in this group.

### **TARGETED ASSESSMENTS**

The programme had planned to undertake some targeted assessments with employers of at risk workers involving a joint approach with the Labour Inspectorate and Immigration NZ (as discussed above). There were a small number of joint operations and some joint assessment visits. However, as stated previously, overall inspectors addressed at risk workers in an adhoc fashion during their assessments rather than applying a targeted approach. The focus on at risk workers could be developed for the next phase of the rebuild.

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# 3.0

## Outcomes

### IN THIS SECTION:

- 3.1 Which outcomes have been achieved?
- 3.2 Areas of mixed results
- 3.3 Areas for development
- 3.4 What factors have supported success?
- 3.5 Were there any unintended consequences of the programme?



### 3.1 Which outcomes have been achieved?

The programme has achieved a number of its intended outcomes to date. Given the timing of the evaluation, it is unsurprising that most of these achievements are short- and medium-term. The achievements to date provide a sound base for working toward the long-term outcomes as outlined in the intervention logic (see Figure 1). For a summary of which outcomes have been achieved, see Appendix B.

#### The inspectorate had the necessary tools to engage, educate and enforce

From an industry perspective, participants raised the importance of having inspectors who were knowledgeable about the construction industry and methods of construction. This knowledge was central to credibility in the eyes of duty holders. The knowledge was also key to providing sound education for industry and integral to building good relationships with industry members.

At the outset of the Rebuild, there was a reported gap in the resources available to inspectors. However, over the Rebuild period, the inspectors have largely had the necessary tools to allow them to engage, educate and enforce in their inspection work. The NSW construction inspectors played a key role in achieving this objective. While a number of the Christchurch construction inspectorate were relatively inexperienced and new to WorkSafe, most of the NSW inspectors that were part of the secondment programme were specialists who had up to thirty years of experience. This meant that there were specialist construction assessors working in Canterbury from 2013 to 2016. The NSW inspectors strengthened the Christchurch team by carrying out training and mentoring during their time.

In addition, the NSW inspectors, programme staff and staff in WorkSafe's Standards and Guidance team produced a number of guidance documents that were seen as relevant and useful by both inspectors and industry members. These tools were available to the wider inspectorate. However, some interviewees felt this could have been done in a more systematic way, to give greater benefit to the inspectorate. The distribution approach for guidance/tools and the use of these materials is an area to consider with future programmes.

However, subsequent staff turnover of Canterbury inspectors, along with the discontinuing of the NSW inspector programme, means that there is a risk that construction specific experience and ability will be lost. Industry members said it is important that construction expertise is maintained so the inspectorate can continue to provide education and informed engagement for the upcoming commercial work; and, because of the clear indication from industry that having this knowledge provides credibility for WorkSafe inspectors which is central to successful engagement.

#### Industry businesses are aware of their obligations and the consequences of not meeting their obligations

Businesses were generally aware of their obligations and the consequences of not meeting them. In the 2015 Health and Safety Attitudes and Behaviours (HSAB) survey, 70 percent of Canterbury construction employers reported they were confident that they were fully aware of their health and safety obligations (this was similar to other construction employers surveyed outside of Canterbury – 66 percent). Sixty-two percent of employers also said that they were confident that they understand how to comply with these obligations (this was similar to other construction employers surveyed outside of Canterbury – 59 percent). While this indicates awareness of health and safety obligations, we cannot assume that this is put into practice.

Most businesses involved in the qualitative interviews, especially the larger enterprises, had a set of rules for what is tolerated on site and were prepared to ask contractors to leave when they did not adhere to the rules. Businesses contracted to larger sites were required to complete induction paperwork which sets out the health and safety requirements contractors must adhere to while on site. Access to the site is dependent on meeting this requirement and consequently is completed as a matter of course. In addition, enforcement provided an incentive for businesses to address health and safety obligations.

However, among SMEs, sub-trades in particular, there was some confusion about their obligations under the new legislation and over what enforcement could entail. This confusion suggests that greater engagement and education might be necessary for sub-trades in particular.

### Industry workers are aware of their rights and obligations

In the qualitative interviews and focus groups, a theme of industry workers being largely aware of their health and safety obligations came through. This was driven by the health and safety standards required by their business, or for smaller contractors, by the client they were working for. However, as noted above, some smaller operators (and their workers) and sub-trades expressed some confusion over their obligations under the new legislation. Their understanding of rights and obligations was at a more general level of needing to following health and safety guidelines, report any issues, and so on. While this does provide a strong foundation a greater level of understanding of their obligations is probably necessary for the smaller operators.

In the 2015 HSAB survey, 71 percent of workers said they were confident they were aware of their legal responsibilities as a worker for workplace health and safety (compared with 62 percent of construction workers outside the Canterbury region). In addition, 75 percent of workers surveyed said they were confident they were aware of their rights as a worker for workplace health and safety (compared with 69 percent of workers outside the Canterbury region).

### Relationships and communication have improved across the rebuild

The Charter was successful in improving relationships and communication between WorkSafe and industry, with both parties highlighting how much better their working relationships were following involvement in the Charter. It appears that the Charter improved information flows between WorkSafe and industry, and facilitated stronger collaboration on Health and Safety initiatives. Building relationships with directors and managers in companies was an effective way of driving health and safety and this top down approach, where these directors and managers advised their staff and contractors, appeared to be effective in triggering change on site.

At the outset, the Charter focussed on engaging larger construction companies to achieve a wide reach early on. The Charter was successful in engaging with most of the larger construction businesses in Canterbury, but a smaller proportion of SMEs had become signatories, though this was increasing through a sustained effort from the Charter as the programme progressed. Within signatory businesses, the relationships were largely built with company directors, managers and health and safety managers and did not extend to foremen and workers. Foremen and workers from Charter signatory businesses that were interviewed for the evaluation said they did not go to Charter events and did not know much about the Charter, though a number said the improvements to safety they were experiencing were likely due to the Charter influencing management.

Most businesses interviewed who were not Charter signatories reported there had been little change in their relationships and communication with WorkSafe over the rebuild period. This is particularly important considering the evaluation findings that amongst many smaller operators and sub-trades there was confusion about the new legislation and concern that they would face enforcement action from WorkSafe without knowing their requirements. Alongside this, many smaller businesses were asking for more support and a constructive, educative relationship with WorkSafe.

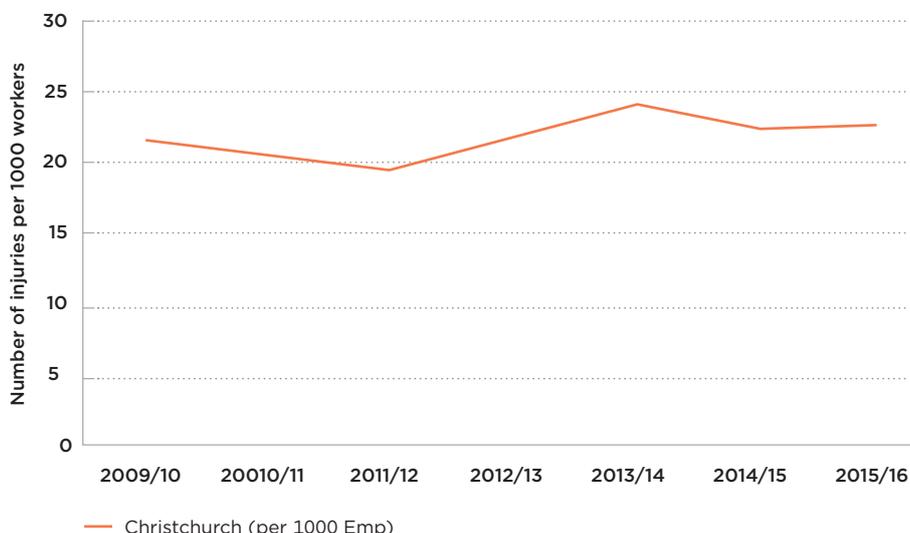
### Industry members take a leadership role in health and safety during the Rebuild

The Charter was a successful mechanism for establishing health and safety leadership roles for industry. All of the Charter leadership roles were held by directors or managers from Charter Steering Group members who were part of the industry, as well as representatives from government departments and unions. Having industry members leading the Charter encouraged industry to join.

Having large business owners/managers in health and safety leadership roles was beneficial as they could apply health and safety throughout their organisation and on sites where they use many contractors. It also allows larger companies to provide guidance for SMEs and sub-trades who have less time and resource to invest in health and safety. However, the Charter would benefit from more involvement from SMEs and sub-trades to encourage their representation and consequent participation, as this would address the perception amongst some SMEs that the Charter was for ‘shiny shoes’ and subsequently had no relevance to them.

### A reduction in serious harm during the Rebuild

Due to the nature of working in and responding to a disaster environment, it was expected that the type of injury, and subsector injuries occurred in, would change as the Rebuild progressed. As such, the programme evolved over its duration as the nature and volume of the construction activity in the Canterbury region changed. The evaluation found a positive result in terms of serious harm following the introduction of the Canterbury Rebuild programme. The WorkSafe programme began in January 2013, with much of the work really starting in December 2013. WorkSafe data show that since the programme was operating, severe injury rates have declined (see Figure 2).



**FIGURE 2:** Rate of severe injuries (per 1,000 employees) in the construction industry in Christchurch (2009/10 -2015/16)

Source: MartinJenkins (2017)

Injury rates and fatalities were part of the programme's long-term outcomes and may be assessed in the future to look at whether there are trends and if these trends are associated with the programme interventions. However, WorkSafe engaged MartinJenkins to undertake a cost-benefit analysis and estimate the impact on injuries of the Programme. This analysis found that over a four year period, the Programme could have prevented at a minimum:

- up to 1 fatality
- 3 to 6 severe injuries, and
- 50 to 100 non-severe injuries.

Taken together, these injuries avoided translate in to a benefit-cost ratio of between 3:1 and 6:1 for the Programme. This is consistent with the returns seen for similar programme featuring a combination of education, enforcement and partnership with industry in NZ, Australia, and other jurisdictions (MartinJenkins, 2017).

### Zero fatalities during the Rebuild

There have been zero fatalities associated with the Rebuild since the Programme has been underway, when initial expectations were for multiple fatalities. Part of this reduction in fatalities can be attributed to the Programme, alongside other factors that influenced safety in the Rebuild.

## 3.2 Areas of mixed results

This section discusses outcome areas where there were mixed results. Many of these showed that the programme had achieved outcomes. However, these were typically limited to specific sub-sectors of the industry.

### Industry members sign up to the Charter

As in Figure 1, the Canterbury Rebuild Safety Charter (the Charter) was one of the ways in which WorkSafe engaged and educated during the Rebuild programme. It was expected in the medium-term, participation in the Charter would contribute to better relationships across the Canterbury construction industry, and that the tools provided to Charter signatories would assist them in improving their practice. The short-term outcome required to achieve these medium-term outcomes is that industry members are aware of and sign up to the Charter.

At the time of the evaluation, there were 324 signatories to the Charter. These signatories were spread across the Rebuild, including those in construction, demolition, horizontal infrastructure, specialist trades, local and central government, insurers and PMOs (see Table 1). The Charter appears to have attracted members from across the industry and this appears to be a successful initiative.

| TYPE OF BUSINESS                       | NUMBER OF SIGNATORIES | PERCENTAGE OF SIGNATORIES |
|--|-----------------------|---------------------------|
| Commercial Construction Company        | 49                    | 15%                       |
| Government Organisation                | 18                    | 6%                        |
| Horizontal Infrastructure Organisation | 19                    | 6%                        |
| Insurers                               | 4                     | 1%                        |
| Labour Organisations on Hire           | 13                    | 4%                        |
| Other                                  | 21                    | 7%                        |
| PMO                                    | 6                     | 2%                        |
| Professional Services                  | 72                    | 22%                       |
| Residential Builder                    | 62                    | 18%                       |
| Specialist Trade Organisation          | 62                    | 19%                       |

**TABLE 1:**  
Charter signatories  
by type of business

There is currently a greater focus on increasing the number of small- and medium-sized enterprises in the Charter as it was acknowledged that initially they were under-represented (see Table 2). The proportion of Charter signatories that employ 0-19 workers is, compared to the growing number of SMEs in construction in Canterbury<sup>8</sup>, still a small proportion of the industry.

| SIZE OF BUSINESS | NUMBER OF SIGNATORIES | PERCENTAGE OF SIGNATORIES |
|------------------|-----------------------|---------------------------|
| 0                | 7                     | 2.3%                      |
| 1-5              | 55                    | 18.1%                     |
| 6-9              | 43                    | 14.2%                     |
| 10-19            | 57                    | 18.7%                     |
| 20-49            | 61                    | 20.6%                     |
| 50-99            | 22                    | 8.7%                      |
| 100+             | 51                    | 17.4%                     |

**TABLE 2:**  
Charter signatories  
by size of business

The Charter Steering Group is evidently aware of this need, as the qualitative interviews highlighted that this was already an area that the Charter Steering Group and programme staff were now addressing, particularly through making sure that the Charter offered tools and information that was relevant to SMEs. A Charter officer had been employed, with part of the scope of the role being to attract smaller businesses. The Charter Steering Group have implemented a mentoring system to provide more concentrated benefits for small businesses, who could access advice from a specified member without extra cost; however, there has been a slow uptake of this.

<sup>8</sup> See: [www.ird.govt.nz/resources/e/6/e6eeadd1-cb2a-47b8-b9a3-c4618436d472/2015+Adverse+Events+Synthesis.pdf](http://www.ird.govt.nz/resources/e/6/e6eeadd1-cb2a-47b8-b9a3-c4618436d472/2015+Adverse+Events+Synthesis.pdf)

## Industry businesses understand what makes good health and safety practices, and the benefits of good health and safety

Construction industry businesses that were signatories to the Charter generally understood what made good health and safety practices. Charter signatories, and in particular, larger businesses, had invested in building their understanding of good health and safety practices. A lot of the larger businesses were driving good health and safety practice through their contracting process, meaning smaller businesses were exposed to these and were complying in order to obtain access to and maintaining work. However, there was some confusion for smaller businesses in trying to navigate what made good practices. As in a number of industries, SMEs discussed having less time and money to invest in understanding health and safety and or implementing processes to address health and safety at work. For some SMEs, this confusion was exacerbated by having to adhere to different health and safety practices on different sites and many felt that there needed to be one standard site access compliance, rather than many which required them to demonstrate compliance for a wide range of practices and sites across greater Christchurch. This was considered a big investment and one that as smaller operators cost them time and ultimately money that they could not afford.

Charter signatories generally understood the benefits of good health and safety. Businesses were in part driven by the benefits of good health and safety: increased productivity; reduced cost to business from illness or injury; the image of the business and for some care for employees' well-being. Alongside the benefits, enforcement was still a motivator, especially for SMEs and sub-trades, in driving health and safety practices.

There were some non-signatories interviewed who were less clear on what good practice looked like, or the benefits to them. As with the Charter signatories, it was less common for the SMEs interviewed to see the benefits of implementing good practice, and some viewed health and safety as contrary to production/ completion of tasks, which meant they were less profitable. There is still some educative work to do with SMEs and non-charter members to drive an understanding of good health and safety practice and its benefits to business.

## Industry workers understand how they can contribute to, and manage their own health and safety

While the HSAB survey found that workers were confident they understood their rights and obligations (see section 3.1.3), there was less evidence that they understood how to contribute to or manage their own health and safety. The qualitative research suggests that this may be an outcome of the top down approach that has been adopted, where standards and practices are being set by the company management or a company health and safety manager or officer without necessarily any input from workers. The qualitative research also found that amongst workers there was no clear understanding of how they might contribute more widely to health and safety at work.

Participants in the qualitative research frequently referred to toolbox talks as a key means of communicating health and safety information. These talks were also seen as an opportunity for individuals to raise any issues they had and discuss any changes in the site operation. However, it appeared these were often led by the site supervisor, foreman, or leading hand, and workers played a more passive role in the meetings. Encouraging worker engagement is an area where more work is needed. This has been recognised by the Charter Steering Group with the initiation of a project focussing on worker engagement that is aimed at improving the ways businesses get workers involved in health and safety. This project had not commenced at the time of data collection.

The Charter Officer has also started running sessions with workers at their place of work, where the Charter tools, resources and health and safety messages were introduced. These sessions had been well received and businesses valued having someone who was knowledgeable about the industry come and talk to workers at their office and during working hours. The use of this approach could be developed and explored further as part of the construction programme.

#### Industry workers and businesses are aware of and have a focus on work-related health issues during the Rebuild

There was some awareness of work-related health issues during the rebuild with some discussion about exposure to dust, fatigue, psychosocial impacts and exposure to asbestos. These participants were more likely to come from larger businesses and businesses that had included a focus on work-related health in their approach to health and safety. However, most participants focussed on safety issues rather than health.

Dust exposure was widely acknowledged and being addressed through use of PPE, and in some cases sweeping being replaced by the use of industrial strength vacuuming. While fatigue was also quite widely acknowledged as being an issue for some workers, there was little discussion of addressing this, with some foreman/principals talking about encouragement of hydration during the day but few addressing monitoring hours worked or ensuring breaks were taken.

A small number raised mental health issues related to experiences of greater Christchurch residents during and post the earthquakes and relayed that when engaging with home owners as clients this caused them stress as they often had to traverse the clients mental health needs before addressing building repair issues. In addition, some of these workers were also impacted personally by the earthquakes and these workers noted that poor mental health was a significant issue in greater Christchurch, post the February earthquake, which spilled over into workplaces. Those in larger businesses were particularly cognisant of the psychosocial impacts, and some had instituted counselling and welfare services for staff.

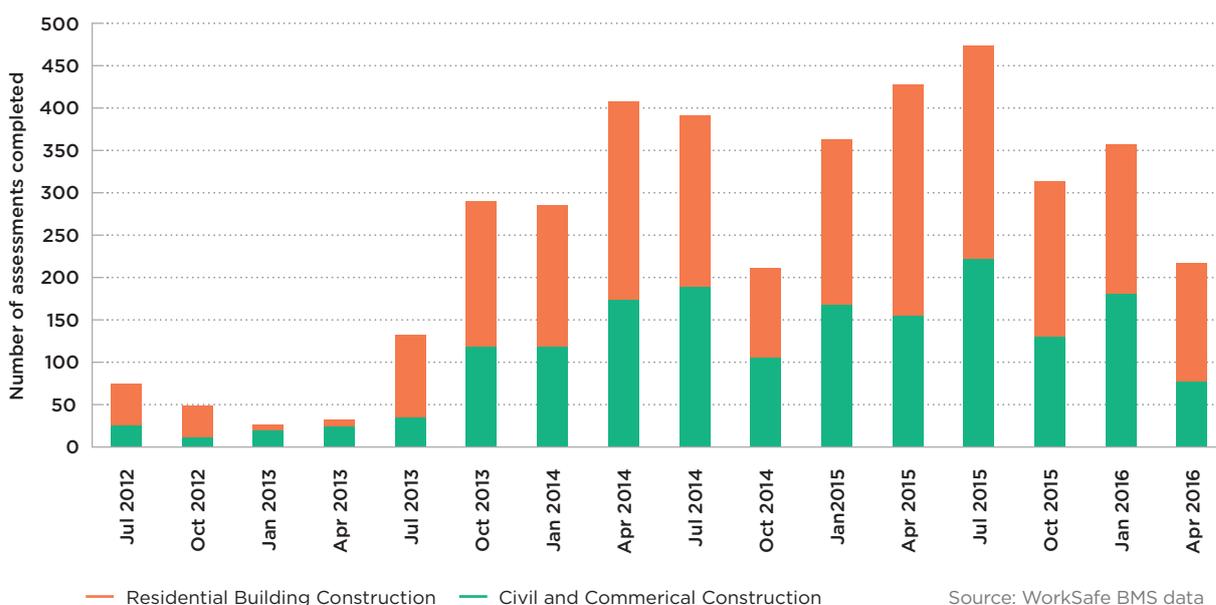
Asbestos exposure was an work-related health issue that was raised by many of the participants. This suggests that the work that has been done had to highlight the risks associated with exposure to asbestos, and to raise awareness of what steps should be undertaken if asbestos was suspected has impacted in the sector. Workers across demolition, construction and specialist trades were clear that if they suspected there was some asbestos at their site, they were to immediately stop work and get the area tested and, if needed, addressed before commencing work again.

For those who said they had signed up to have the Occupational Health van visit their site, the feedback on this was positive. Workers and foremen said it was a good opportunity to speak to inspectors or get advice in a less formal setting than an assessment visit. They noted that receiving something free out of the visit (drink bottles or health checks for staff) had been part of the incentive in accessing the initiative.

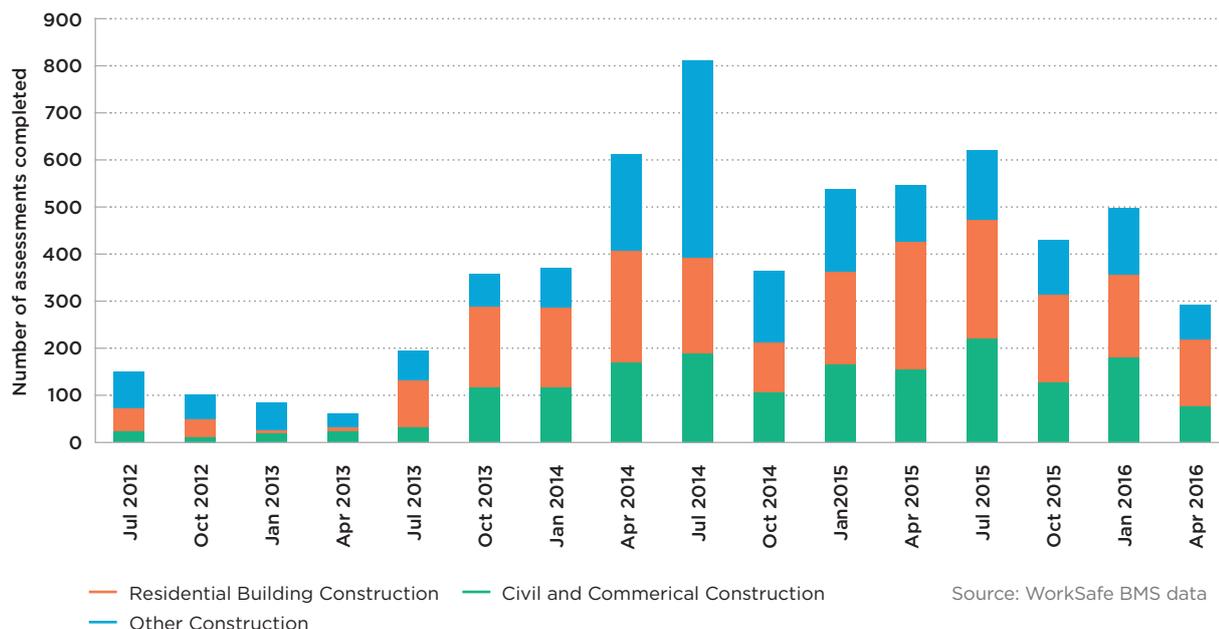
While there is more work needed to encourage a focus on work related health, these findings suggest that the programme's focus on work-related health to-date is raising awareness in the sector and triggering changes in practice, particularly in relation to asbestos and the risks associated with exposing or disturbing asbestos on site.

## Inspectors educate, engage and enforce appropriately and consistently in the right areas

Construction industry foremen, workers and company directors were asked about their experiences engaging with WorkSafe inspectors. Many perceived that compared to other areas they had worked in, WorkSafe inspectors were more visible in greater Christchurch and carried out more enforcement. Many also perceived that inspectors were more visible in the CBD than in residential areas. This is an expected finding as the NSW inspectors targeted the CBD, due to the large amount of demolition work and higher risk associated with the demolition, reconstruction and new build work in the CBD. However, the assessment data available shows that there were still a large number of residential building inspections during this period (see Figure 3); at times the two areas were at similar levels of inspection and at other times residential building assessments were greater than civil and commercial. A limitation of this data is that demolition work cannot be broken down further into residential and commercial, meaning that the other construction category may obscure the level of activity in both areas. As can be seen in Figure 4, there was a large amount of construction activity assessed that fell into the other category, which could be commercial and civil or residential.



**FIGURE 3:** Quarterly assessment activity data in Canterbury (residential versus civil and commercial) (June 2012-June 2016)



**FIGURE 4:** Quarterly assessment activity data in Canterbury (residential versus civil and commercial) (June 2012-June 2016)

However, residential businesses and workers believed there was a need for more residential enforcement work as there were smaller businesses and contractors who were not investing in health and safety interventions because of the cost and the fear that they would no longer be competitive in residential building if they invested in this area. There were, however, some in the residential sector that were investing in health and safety as they saw a long term gain in terms of business outcomes, specifically in terms of less lost worker hours and a more productive workforce.

Many industry businesses wanted more engagement with WorkSafe – in particular more engagement and education. They wanted to be able to be educated so they would be able to improve their approach to health and safety. Many considered the Australian inspectors had encouraged them to engage and that the Australian inspectors' strong understanding of the sector and nature of work meant that constructive guidance was often given and greatly appreciated. A consistent message from industry was that inspectors needed to understand the work of the industry in order to gain respect and to be taken seriously. Having this knowledge would facilitate greater engagement from those in the sector and would be more likely to bring about behavioural change.

Alongside this, many talked about the need to continue enforcement in order to lift and maintain health and safety standards, and for smaller businesses, level the playing field as they were being undercut by others who could offer lower costs by cutting health and safety practices. Many raised the positive impact the Australian inspectors (as guided by the targeted approach to assessments) had had on practice and were aware that the secondment programme had finished. They noted that WorkSafe had been quieter in the six months prior to being interviewed for the evaluation (April-October 2016), which coincided with the conclusion of the secondment programme and suggested it could be timely to implement another programme of targeted assessments.

## Industry members use the Charter to improve their Health and Safety performance

As previously discussed in section 2.1.2, the Charter undertook a research and engagement project with its members to understand how the Charter was performing. The research found that 53 percent of respondents found the Charter useful or very useful in improving their health and safety. These results showed that there was some improvement needed in order to shape the Charter into something that businesses could use. Since the research, the Charter Steering Group have produced a number of toolbox talks that can be downloaded and used by businesses, and produced a significant amount of information and resource that members and non-members can use.

The qualitative interviewing found that for many, the value of the Charter was in the events that brought in industry members to discuss a specific topic, giving them real-life examples of issues and how they were overcome. The Charter events also provided the opportunity to network with and talk to other industry members (who could be competitors in other settings), in a more neutral setting to discuss issues and information with WorkSafe inspectors.

Part of the Charter Officer role was to make the Charter and its tools more accessible to businesses and workers; however, the evaluation did not find evidence that the Charter tools were being used systematically across the industry in Christchurch.

## Industry businesses implement good health and safety practice during the Rebuild

The extent to which businesses were implementing good health and safety practices during the rebuild was variable. On the whole, workers and foremen and business owners reported that health and safety had been increasingly addressed in Canterbury during the rebuild and that this was evident when Canterbury was compared to construction in other regions their companies were operating in. Similarly, the NSW inspectors noted that there was a higher level of health and safety practiced following the targeted assessments compared to construction in NSW.

The 2015 HSAB survey found that 73 percent of Canterbury construction employers agree that they are highly motivated to comply with health and safety regulations (similar to the level found in construction employers in the rest of New Zealand). Although there was a commitment to health and safety overall, the extent to which businesses were implementing good practices varied for different groups. Charter signatories showed a higher level of practices than non-Charter signatories and some smaller businesses. For smaller businesses; cost, lack of time, and confusion over what is good health and safety acted as barriers to implementing good practice.

Industry businesses managing a site would have a set of health and safety requirements that needed to be fulfilled by workers and contractors before they accessed the site. Most businesses voiced commitment to these requirements and some discussed instances where they had made staff or contractors leave the site for unsafe practices. However, some contractors noted that the extent to which the requirements were monitored differed from site to site and different sites had different levels of health and safety practice required; these participants considered that a more uniform and standardised approach was necessary and that this approach would save valuable time it cost them as a business to address multiple and at times conflicting procedures for safe access to a site.

The 2015 HSAB survey found that workers in Canterbury were more likely to say that:

- their boss was genuinely concerned about the health and safety of workers (56 percent strongly agreed this was the case compared with 48 percent of construction workers overall);
- their boss would totally support them if they suggested stopping work because of a possible risk (50 percent strongly agreed compared with 42 percent of construction workers overall);
- appropriate action was taken, in the event of a serious harm incident or near miss (for example; serious harm incidents were reported on 58 percent of occasions, compared with 43 percent for construction workers overall).

While levels are higher in Canterbury than in the rest of New Zealand, levels still remain low with some of these positive indicators being reported by less than half the workers surveyed. This suggests that while some businesses engaged in the Rebuild are implementing good practice, there is still a significant proportion that is not.

## Industry workers practice good health and safety during the Rebuild

As with businesses, the extent to which workers practiced good health and safety varied. The 2015 HSAB survey found that 71 percent of workers said agreed “Everyone from the boss down is always trying to improve safety,” this was much higher than reported by construction workers in the rest of New Zealand (53 percent). This was supported by the qualitative research, where workers interviewed noted that their health and safety practices were better during the Rebuild compared to work prior to the Rebuild, or in other parts of the country where they had worked previously, indicating that there has been some improvement over the rebuild period.

Workers’ practices were in large driven from the top down as they were following their companies’ requirements on site, or the requirements of their client when they were contracted to work on a site run by a different company. Consequently, in businesses which implemented better health and safety practices, workers were practicing better health and safety.

This was particularly concentrated in businesses that were signatories to the Charter. The qualitative data found that those outside the Charter reported that while practice had improved, there was still a lot of room for development before it would be considered good practice. This is an area the programme should look to address as it moves forward, as the inspectors currently have a greater reach than the Charter through their assessment visits.

### 3.3 Areas for development

The evaluation found very little to suggest that the programme had not made progress toward its intended outcomes. There was only one area where not much progress was made.

#### The information and interventions are appropriate for at risk workers

For the purposes of this report, ‘at risk workers’ refers to: younger workers, those who are new to the industry, those where language can be a barrier to communicating and understanding health and safety requirements, and those who are in precarious employment situations.

Though reference is made to working with at risk workers, the evaluation found that there had not been a systematic approach to engaging or educating at risk workers. While inspectors were told to be aware of at risk workers in their assessments, the assessments were not focused on this issue, nor was there any guidance or materials produced to cater to any specific language needs. A guide for migrant workers was developed<sup>9</sup> and then developed further into being a guide for all workers<sup>10</sup>, but was only produced in English. At the time of writing, WorkSafe had built on the work initiated by the Canterbury Rebuild and translated the guides on workers' rights and responsibilities into five other languages<sup>11</sup>.

### 3.4 What factors have supported success?

The qualitative research for this evaluation revealed a number of factors which contributed to the success of a range of the programme's intended outcomes. These are discussed below.

#### Early flexibility that was grounded by a high engagement approach

Having flexibility and designated funding allowed the Canterbury Rebuild programme the autonomy to design and experiment with initiatives. This autonomy was paired with a high engagement approach with industry, which meant that the approach also had accountability (particularly to industry members). Working quickly was crucial during the Rebuild as the construction landscape was continuously changing and the programme had to be ready to respond to new risks as they arose.

The programme agility was noted by industry members who stated working with the programme had been a much better experience than they had had with other government departments and had meant they were more willing to continue working with the programme. The high engagement approach meant that the programme had consistent accountability for any steps taken, or initiative implemented. This balance was seen as a key factor supporting successful achievement of outcomes by both industry and programme staff.

#### Experienced inspectors who can educate industry

As stated above, the Rebuild programme was operating in a post-disaster environment, which meant the programme needed to be agile, and has evolved as the nature and volume of construction work has changed. At the time the NSW inspectors programme was implemented, there was a need for experienced inspectors who could not only upskill WorkSafe's newer inspectorate staff but also provide assessments backed by specialist knowledge. As such, the NSW inspectors were seen as key to the success of the enforcement and education elements of the programme. The experience that the inspectors brought with them, and the approach they took, was critical given the lesser experience levels of some of the greater Christchurch construction inspectorate. As hoped, the NSW inspectors also provided mentoring and education for the newer inspectors, and this was considered a significant outcome of the secondment programme.

The support provided to the NSW inspectors was a key contributor to the success of the secondment programme. It was clear from the interviews with staff and the NSW inspectors that having a dedicated resource to enter the assessment data into WorkSafe's database was integral to allowing the NSW

<sup>9</sup> Excluding two motor vehicle road accidents.

<sup>10</sup> The Rebuild area is the Christchurch City, and Selwyn and Waimakariri District Council areas.

<sup>11</sup> See: [www.worksafe.govt.nz/worksafe/information-guidance/all-guidance-items/migrant-construction-workers-in-new-zealand-your-health-and-safety-rights](http://www.worksafe.govt.nz/worksafe/information-guidance/all-guidance-items/migrant-construction-workers-in-new-zealand-your-health-and-safety-rights)

inspectors to have such an impact while visiting. Given the short duration that inspectors stayed (four week blocks), and the specialised nature of the system used for WorkSafe's database, a full-time team member was employed to enter the data following the assessments, allowing inspectors to focus on the assessments and training work. The pastoral care provided to the NSW inspectors was also important in supporting them to live and work in a challenging environment and while away from home.

#### Educating industry through other channels

A recurrent theme of the qualitative data was that industry members were pleased to be able to get guidance and information from WorkSafe in less formal settings than through the assessment process or investigation visits. Standouts for the interviewees were the trade breakfasts; the Occupational Health Van; the Charter Officer engagement work; and, the Charter events (though these tended to be mainly attended by those in management roles).

#### Industry leading the Charter

The programme made a conscious decision to let industry lead and front the Charter. Having industry leading the Charter gave credibility to the Charter in the industry and encouraged other businesses to join. This supported an investment in the success of the Charter by industry. It also led to growth of the Charter as a mechanism for partnering with industry, reaching business leaders and promoting health and safety.

#### Having senior leaders as Charter leaders

Having senior managers from across the Rebuild as Charter leaders and sitting on the Steering Group and Working Groups helped drive health and safety practices in the sector. Having the directors or senior managers from large companies involved meant that they could drive health and safety with both the staff in their company and the companies they contracted to. It also allowed them to set the health and safety requirements for staff and contractors on sites and to position a good health and safety record as a desirable attribute in hiring contractors. This in turn created demand for contractors and smaller businesses that practice good health and safety and an awareness that investing in good health and safety practice was a business advantage.

The larger companies leading also created an opportunity for these companies to play a role in educating and supporting the smaller businesses, who have limited time and resource to spend on upskilling in health and safety. Smaller employers said this was one of the key benefits they saw in the joining the Charter.

### **3.5 Were there any unintended consequences of the programme?**

The evaluation did not find any unintended consequences or outcomes of the programme.

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# 4.0

## Future focus areas

### IN THIS SECTION:

- 4.1 Planning for the final phase of the programme
- 4.2 Improving the co-ordination of the programme
- 4.3 Having a visible inspectorate
- 4.4 Multiple ways of interacting with WorkSafe
- 4.5 Targeting foreman and site supervisors
- 4.6 Reaching Sub-Trades and Small and Medium-Enterprises
- 4.7 Residential construction, while maintaining the commercial focus
- 4.8 Encouraging a more consistent approach to health and safety standards (including pre-qualification)
- 4.9 Working with vulnerable workers



Due to the nature of working in and responding to a disaster environment, the programme has evolved over its duration and continues to evolve as the nature and volume of the construction activity in the Canterbury region changes.

The evaluation found a number of areas where increased focus would benefit WorkSafe and support the achievement of desired outcomes. These are discussed below.

#### **4.1 Planning for the final phase of the programme**

The programme concluded on 30 June 2017. However, the Rebuild is currently forecast to run into 2020. Health and Safety will continue to be an area of concern for the life of the Rebuild (and after), as when the volume of work decreases, this will create the potential for price-cutting to compete for the reducing pool of work, and consequently the risk that Health and Safety practices will be cut to achieve competitiveness.

WorkSafe is considering how best to provide ongoing support to the Canterbury Rebuild, whilst addressing emerging focus areas in construction – such as the Auckland Unitary plan, and other, national-level initiatives. This includes considering how the Rebuild programme fits within the broader construction work programme being developed, how the Charter would be supported, how the Charter can benefit other areas (like Auckland), and if further evaluation is required at a later date.

#### **4.2 Improving the co-ordination of the programme**

The Canterbury Rebuild programme used different approaches to address the risks posed by the rebuild. These included strengthening the inspectorate, working with industry through the Charter and other working groups/networks, a set of work-related health initiatives, and establishing relationships with industry and other government agencies. This allowed the programme to reach different groups and combine WorkSafe's engage, educate and enforce functions.

The programme planning had some clear objectives set at the start of the programme. However, due to the nature of working in and responding to a post-disaster environment, there was also flexibility built into the programme. As such, the programme evolved over its duration and continues to evolve as the nature and volume of the construction activity in the Canterbury region changes.

Given the dynamic working environment, drawing the different work-streams together under one programme was challenging but vital. There were a number of staffing and reporting line changes during the programme. Initially, the entire programme of staff were reporting to one manager (including the inspectorate staff), this was changed halfway through the programme. The inspectorate was re-aligned back into the Christchurch office reporting lines, and programme staff were re-aligned to the national office's 'National Programmes' grouping. The qualitative research revealed that many perceived this realignment as fracturing collaboration. While the programme team was still working closely together, there was a clear separation between the inspectorate work and the programme staff work at the time of the evaluation.

This meant that while WorkSafe's role in the Charter remained strong the programme is now less integrated, with individuals from the inspectorate unaware of the work being undertaken by programme staff and vice versa.

At the time of writing, programme staff are meeting with the inspectorate to discuss elements of the programme and considering areas for future collaboration. The evaluation suggests that programmes should build in inspector interaction and engagement plans which outline how the inspectorate will be involved in the overall programme intervention plan.

### 4.3 Having a visible inspectorate

Industry members observed an increase in inspector activity, particularly when the NSW inspector secondment programme was operating. However, in the six months prior to interviewing, they thought that the inspectorate activity had notably quietened – this coincided with the conclusion of the secondment programme and the loss of three of the five construction inspectors in Christchurch. This perception aligns with the assessment activity data (see Figure 4).

In the 2015 HSAB survey, there were no regional differences in the proportion of workers who said they were familiar with WorkSafe (know a lot/quite a lot about WorkSafe NZ). Of workers who knew at least a little about WorkSafe, the survey found that 32 percent thought that a WorkSafe NZ inspector would visit their workplace in the next 12 months, this was similar to that of the rest of New Zealand (33 percent). This had fallen from the 2014 level, where 40 percent of workers who knew at least a little about WorkSafe thought that an inspector would visit in the next 12 months.

One clear message here was that the presence of the inspectorate is important in the construction sector and serves to raise awareness of health and safety and works as an incentive to address health and safety in construction.

#### **4.4 Multiple ways of interacting with WorkSafe**

Workers and their employers identified a preference for being able to ask for information and guidance from WorkSafe in less formal settings than an assessment or investigation. Where the programme had offered this – such as the Occupational Health Van, the Project Officer, trades breakfasts and other Charter events – where industry members had expressed they really appreciated the opportunity. Employers also discussed how much they had appreciated the focus on specific topics and provision of real life examples at the Trade Breakfasts. As the programme looks at its future projects, the inclusion of a mix of education opportunities that are tailored to specific groups and co-ordinated systematically, bearing in mind that workers and foremen/site supervisors have different needs to that of employers and senior management would be well received.

#### **4.5 Targeting foreman and site supervisors**

The interviews and focus groups found that the programme had a more limited reach for foremen and workers than was the case for management. Some of the initiatives, such as the Occupational Health Van and the work of the Charter Officer have been aimed at engaging and educating these two groups, but the majority of programme work has not. The evaluation found that while foreman and site supervisors drive safety on site, they are currently not being reached through the Charter through events/trade breakfasts. There is more work to be done on worker engagement and participation and understanding what effective engagement looks like in a rebuild environment and in construction more generally.

The Charter did run an event aimed at Health and Safety Reps, which had the purpose of engaging workers directly. However, this was not raised during the qualitative interviews with Charter members and their workers. Future Charter events could be tailored to foremen and site supervisors and focus on topics that are relevant to this group. Foremen and site supervisors could also be engaged through other aspects of the programme, such as the inspectorate, the Charter Officer, and the Occupational Health van visits.

#### **4.6 Reaching Sub-Trades and Small and Medium-Enterprises**

While the programme reached larger enterprises in the Rebuild, particularly through the Charter, there was also evidence that more could be done to engage with Sub-Trades and Small- and Medium-Enterprises (SMEs). SMEs involved in the evaluation stated that they often did not have the time, or the ability to have a specific resource, to focus on health and safety in the way that larger enterprises do. It was also clear that this extended to participation in the Charter for some.

As WorkSafe looks at other construction (and other industries) priorities, consideration should be given to how SMEs will be engaged and educated as part of this process, and which tools are a better fit for these businesses to ensure that the entire industry is covered in programme foci.

#### **4.7 Residential construction, while maintaining the commercial focus**

There was a perception that residential construction sector had a lot of poor health and safety performers, and were less engaged with the Charter and WorkSafe. Residential workers reported not having seen much of the inspectorate during their time in the Rebuild. However, this perception was not born out by WorkSafe's assessment data.

Currently that commercial rebuild work is ongoing, with some significant projects still in progress (such as the Central Library, Lichfield Carpark, and the Performing Arts precinct and the Town Hall) and this Rebuild work will remain high risk. It is recommended that the programme continue to have a presence in the commercial sector, and to maintain a visible inspectorate in this area while simultaneously focussing on continuing to have a presence in the residential sector.

#### **4.8 Encouraging a more consistent approach to health and safety standards (including pre-qualification)**

A number of industry members discussed the differing requirements for the PMOs and larger construction companies, and suggested that a lot of time could be saved if there was a consistent approach taken to Health and Safety on all sites, and in qualifying to tender for work. WorkSafe are currently working with a range of industry bodies on how the lack of consistency might be addressed at a national level.

#### **4.9 Working with at risk workers**

A specific tool for focusing on at risk workers was developed by the programme. However, it was clear this was not used as systematically as it could have been. WorkSafe should consider why it was that this tool was not implemented as intended and address barriers to its implementation.

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# Appendices

## **IN THIS SECTION:**

**Appendix A:** Methods

**Appendix B:** Outcomes table

**Appendix C:** References

## Appendix A: Methods

The research involved a mixed-method approach, using both quantitative survey and claims data and qualitative interview and focus group data.

### DOCUMENTATION REVIEW

The programme reviewed a number of reports and documents that detail how the programme was intended to be implemented and how it was actually rolled out. Reviewing of these documents was the first part of the evaluation. This generated a number of insights into both process and outcomes and highlighted where further investigation was required.

### INTERVIEWS WITH PROGRAMME STAFF

Where the documentation did not provide answers, the evaluation team undertook interviews with present and past programme staff. These interviews provided further clarification of what was intended to be achieved by the programme, and why any changes in how the actual implementation ran occurred.

### INTERVIEWS WITH SAFETY CHARTER STEERING GROUP MEMBERS

The Safety Charter was one part of the Canterbury Rebuild programme, and whilst it is not solely the work of WorkSafe, it cannot be separated out from the WorkSafe programme. Interviews with the Steering Group provided insight into the intention of the Charter, and how it was implemented.

### FOCUS GROUPS AND INTERVIEWS WITH INSPECTORS

Focus groups with inspectors provided insight into both the implementation of the programme, and the impact of the implementation and on how well equipped inspectors felt to undertake their roles. Focus groups are used to illicit fuller information based on the collective memory of the group. Given the long duration of the programme, there is the potential for individuals to forget aspects of the programme. The use of the group is to alleviate some of what can be lost due to this.

There were two locations for the focus groups. The WorkSafe inspectors are based in Christchurch and interviews took place with them in Christchurch. There were also a number of seconded inspectors from SafeWork NSW, who returned to Sydney and thus focus groups needed to take place in Sydney.

### HSAB SURVEY

WorkSafe's annual Health and Safety Attitudes and Behaviour survey has been running since 2014. It has included Canterbury Rebuild-specific and more general questions and provided the basis for a number of outcome indicators. This provided the opportunity to use quantitative measures on the operation of the programme.

### INTERVIEWS WITH INDUSTRY MEMBERS

Whilst the survey provided quantitative measures, it does not provide the context and reasons behind why some of the outcomes have or have not been achieved. Interviews with members of the construction industry enhanced the survey data and provided a fuller understanding of successes and lessons that can be learnt from the programme.

There was some overlap between the Steering Group and the industry members. However, some interviews took place with industry members who are not part of the Steering Group or Charter.

## Ethical considerations

The research was conducted according to the ethical principles and associated procedures endorsed in the Association for Social Science Researchers.

Ethical considerations apply to the primary data collection – that is the focus groups and interviews with workers and employers in the sector, and interviews with WorkSafe staff.

WorkSafe staff were made aware prior to participation that though they will not be identified by name, they may be identifiable by their role within the organisation.

Informed consent was obtained from sector workers and employers participating in the focus groups and interviews and they are not identified personally by name or business. All attempts have been made to ensure confidentiality. If data could not be reported in a way that does not identify individuals from the sector, it was not reported.

Survey data is anonymous to WorkSafe and only figures that are statistically significant and do not identify individuals have been reported in the research.

Some of the data collection took place on site at construction sites where work was being undertaken. A specific safety plan was developed for staff involved to ensure that research staff were not placed at undue risk during data collection. Personal protection equipment was supplied.

Those who participate in the employer and worker interviews and focus groups received a participant acknowledgement in the form of a \$30 supermarket voucher. Individuals who participated in both received one voucher. Participants were not made aware of the voucher prior to participation to ensure there was no external coercion. A reasonable amount of food and drink was provided at the focus groups and interviews. Participants will be provided with a summary of the report findings once the report has been approved for release.

All research data of a confidential nature is locked in a secure cabinet, and electronic data of this nature has been password-protected. Data will be held on site in accordance with the WorkSafe NZ National Records retention policy.

## Responsiveness to Māori

This evaluation involved a significant number of Māori workers and employers without any focussed sampling. Te Ara Tika suggests that in the case of Māori centred research, a research team should consult with Māori Advisors within the Agency about the research approach and the need for Māori input and wider consultation. The research should include Māori fieldwork researchers and should consider Māori project leads and analysis.

At the time of writing, WorkSafe did not have Māori advisors. However, the National Manager, Māori was involved in the design of this project. One member of the research team identifies as Māori and will be involved in the fieldwork and analysis.

## Appendix B: Outcomes table

|                                    | SHORT-TERM  | MEDIUM-TERM  | LONG-TERM   |
|------------------------------------|---|--|---|
| <b>Areas of success</b>            | <ul style="list-style-type: none"> <li>- The inspectorate has the necessary tools to engage, educate and enforce</li> <li>- Industry businesses are aware of their obligations and the consequences of not meeting their obligations</li> <li>- Industry workers are aware of their rights and obligations</li> </ul>   | <ul style="list-style-type: none"> <li>- Relationships and communication are improved across the Rebuild</li> <li>- Industry members take a leader role in Health and Safety during the Rebuild</li> </ul>   | <ul style="list-style-type: none"> <li>- Serious harm rates during the Rebuild reduce</li> <li>- There are zero fatalities during the Rebuild</li> </ul>  |
| <b>Areas of mixed results</b>      | <ul style="list-style-type: none"> <li>- Industry members sign up for the charter</li> <li>- Industry businesses understand what makes good health and safety practices and the benefits of good health and safety</li> <li>- Industry workers understand how they can contribute to, and manage their own Health and Safety</li> <li>- Industry workers and business are aware of work-related health issues during the Rebuild</li> </ul> | <ul style="list-style-type: none"> <li>- Industry workers and business have a focus on work-related health issues during the Rebuild</li> <li>- Inspectors educate, engage and enforce appropriately and consistently, in the right areas</li> <li>- Industry members use the Charter to improve their Health and Safety performance</li> <li>- Industry businesses implement good health and safety practice during the Rebuild</li> <li>- Industry workers practise good Health and Safety during the Rebuild</li> </ul> |   |
| <b>Areas for development</b>       | <ul style="list-style-type: none"> <li>- The information and interventions are appropriate for at risk workers</li> </ul>   |  |   |
| <b>Areas unable to be measured</b> |   |  | <ul style="list-style-type: none"> <li>- Sustained leadership from the industry improves the Health and Safety capability and capacity</li> <li>- Health and Safety outcomes of at risk workers are comparable to those who are less at risk</li> </ul> |

## **Appendix C: References**

ACC (2017) *ACC Canterbury Dashboard – February 2017*, Available:

[www.acc.co.nz/PRD\\_EXT\\_CSMP/groups/external\\_ip/documents/reports\\_results/wpc139814.pdf](http://www.acc.co.nz/PRD_EXT_CSMP/groups/external_ip/documents/reports_results/wpc139814.pdf)

MartinJenkins (2017) *Quantifying the impact of the Christchurch Rebuild programme*, Wellington, 46p

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ISBN 978-1-98-852730-7 (print)

ISBN 978-1-98-852731-4 (online)

Published: November 2017 Current until: 2019

PO Box 165, Wellington 6140, New Zealand

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