TRIENNIAL REVIEW OF THE NATIONAL OHS STRATEGY 2002–2012







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EXECUTIVE SUMMARY

The purpose of the *National Occupational Health and Safety Strategy 2002–2012* (National OHS Strategy) was to set out the basis for nationally strategic interventions to foster sustainably safe and healthy work environments, and significantly reduce the numbers of people hurt or killed at work.

It aimed to facilitate collaboration between stakeholders to improve occupational health and safety (OHS) outcomes and included common goals, priorities, action areas, and a framework for developing a more consistent regulatory environment across Australia. This is the third and final review of the National OHS Strategy.

The review includes:

- a brief history of the National OHS Strategy and its implementation
- a summary of activity under the Areas Requiring National Action (ARNAs) and National Priorities, and
- performance against national fatality and injury targets, priorities, and indicators of success.

Implementation focussed on the nine Areas Requiring National Action (ARNAs). The review contains a summary of the activity across all of the ARNAs. Examples of activities are included in Appendix 1. The positive impact of this activity is reflected in the performance against the desired outcomes, priorities and targets set out in the National OHS Strategy.

The National OHS Strategy included targets for reduction in the incidence rate of work-related fatalities and injuries. Following the first triennial review of the National OHS Strategy, an additional aspirational target of 'having the lowest rate of traumatic fatalities in the world by June 2009' was adopted. While the gap between Australia and the better performing countries has reduced, the aspirational target was not met. In relation to the other targets and priorities there was:

- a 47 percent decrease in the incidence rate of work-related fatalities, more than twice what was required to meet the target of a 20 percent reduction,
- a 28 percent decrease in the incidence rate of serious injury which, despite a strong downward trend, was below the rate of improvement required to achieve the target of a 40 percent reduction,
- with the exception of Falls, trips and slips of a person, which recorded a 2 percent increase in the number of serious injury claims since the beginning of the National OHS Strategy, there were improvements in each national priority mechanism, and
- all of the priority industries recorded significant improvement of between 19 and 49 percent reduction in incidence rate of serious injury over the life of the National OHS Strategy.

The National OHS Strategy also identified four qualitative indicators of success. The review sets out evidence of positive outcomes against each of these indicators. It also identifies some areas that could have been better managed or for which limited progress was made.

Overall during the last decade there was a significant improvement in Australia's OHS performance and a greater level of consistency between the regulatory frameworks and activities of the jurisdictions. It is difficult to accurately quantify the contribution the National OHS Strategy made to the improvement in Australia's OHS performance however it is clear it played a major part and contributed to achieving greater consistency in OHS regulation and the compliance support and enforcement activities of the jurisdictions.

INTRODUCTION

Purpose

The purpose of the *National Occupational Health and Safety Strategy 2002–2012* (National OHS Strategy) was to set out the basis for nationally strategic interventions to:

- foster sustainably safe and healthy work environments, and
- reduce significantly the numbers of people hurt or killed at work.

It also aimed to facilitate collaboration between stakeholders to improve OHS outcomes and included common goals, priorities, action areas, and a framework for developing a more consistent regulatory environment across Australia. The requirement for triennial reviews to monitor and report progress was also included. This report is the third and final triennial review of the National OHS Strategy.

Scope

The final review includes a brief history of the National OHS Strategy and its implementation and a summary of activities under the Areas Requiring National Action (ARNAs) and National Priorities. A summary of outcomes against the following performance measures is also included:

- national work-related fatality and injury targets
- National Priorities, and
- the Indicators of Success.

The review does not attempt to document all activities, compare stakeholders' performance or make judgements about the relative effectiveness of specific activities. Selected activities are included to illustrate the significant effort invested by governments, employer associations and unions in implementing the National OHS Strategy.

The National OHS Strategy was designed to encourage nationally cooperative activities to work towards achieving the aspirational vision, and make real progress on the national targets and priorities. Many of the illustrative examples included in this report reflect activities undertaken by the OHS regulators which were designed using a tripartite consultation process. The employer and union groups along with the regulators had a continuous and strong representational role as Members of Safe Work Australia (and its predecessors) actively shaping national policy and practice. So while employer and union contributions are less visible in terms of the illustrative examples provided in this report their contribution to achieving improvements in OHS should not be underestimated.

Terminology

To ensure clarity and consistency the term OHS is used throughout the report rather than the more contemporary work health and safety unless the usage is in a direct quotation or refers to policy or legislation that uses the term work health and safety. Similarly, business, industry and employer are used as these were the terms used during the life of the National OHS Strategy.

Source Materials

Information sources informing this review included:

- Safe Work Australia and its predecessors' annual reports, business plans and publications
- results of the previous reviews of the National OHS Strategy
- Heads of Workplace Safety Authorities publications (HWSA)
- Workplace Relations Minister's Council (WRMC) reports
- publications and annual reports of jurisdictional OHS authorities, and
- records held by Safe Work Australia.

All data cited in this report is the most recent available at the time of report preparation and unless otherwise specified, was sourced by Safe Work Australia.

BRIEF HISTORY OF THE NATIONAL OHS STRATEGY

From 1999 to 2002 the National Occupational Health and Safety Improvement Framework (NIF) provided Australia with a nationally coordinated 'roadmap' for improving workplace health and safety. In 2002 National Occupational Health and Safety Commission (NOHSC) considered the outcomes from the NIF, the OHS environment and action which might be needed to improve Australia's OHS performance. Commissioners noted the lack of a nationally coordinated approach due to the differing priorities and approaches to improving OHS in each jurisdiction.

The National OHS Strategy was developed through tripartite consultation by NOHSC and was agreed by all members of NOHSC: all Australian governments, The Australian Chamber of Commerce and Industry (ACCI) and the Australian Council of Trade Unions (ACTU).

It provided:

- a vision of 'Australian workplaces free from death, injury and disease'
- national fatality and injury targets
- five National Priorities
 - reduce high incidence/severity risks
 - improve the capacity of business operators and workers to manage OHS effectively
 - prevent occupational diseases more effectively
 - eliminate hazards at the design phase, and
 - strengthen the capacity of governments to influence OHS
- nine Areas Requiring National Action (ARNAs)
 - comprehensive OHS data collections
 - a coordinated research effort
 - a national consistent regulatory framework
 - strategic enforcement.
 - effective incentives
 - compliance support
 - practical guidance

- OHS awareness, and
- OHS skills development
- four Indicators of Success
 - workplace parties recognise and incorporate OHS as an integral part of their normal business operations
 - increased OHS knowledge and skills in workplaces and the community
 - governments develop and implement more effective OHS interventions, and
 - research, data and evaluations provide better and timelier information for effective prevention.

Figure 1 illustrates the intersection and interrelatedness between the National Priorities and the Areas Requiring National Action in the National OHS Strategy. Figure 1 Diagrammatic representation of the National OHS Strategy 2002–2012

NATIONAL VISION

Australian workplaces free from death, injury and disease

NATIONAL TARGETS Sustain a significant, continual reduction in the Reduce the incidence of workplace injury by at least 40% by 30 June 2012 (with a reduction of incidence of work-related fatalities with a reduction of at least 20% by 30 June 2012 (and with a 20% being achieved by 30 June 2007.) reduction of 10% being achieved by 30 June 2007). Reduce high incidence/severity risks ATIONAL PRIORIT Improve the capacity of business operators and workers to manage OHS effectively Prevent occupational disease more effectively Eliminate hazards at the design stage Strengthen the capacity of government to influence OHS outcomes OHS 0HS Strategic Practical Compli-**OHS** National OHS data standards enforceguidance Incentives ance skills research awareness ment support **Areas Requiring National Action** Indicators of success Workplace parties recognise Increased OHS knowledge Governments develop and Research, data and and incorporate OHS as an and skills in workplaces and implements more effective evaluations provide better integral part of their normal **OHS** interventions the community timelier information for business operations effective prevention

A series of three-year national action plans were to be developed. Annual progress reports and comprehensive triennial reports were to be provided to Workplace Relations Ministers' Council (WRMC) and the national priorities adapted to meet changes in circumstances.

Over the life of the National OHS Strategy the composition, focus and legislative basis for the bodies responsible for supporting its implementation underwent significant changes. With these changes came shifts in direction and focus of implementation planning and reporting and evaluation.

Table 1 outlines the tripartite bodies which led the development and implementation of the National OHS Strategy. More information on the history of these bodies can be found on the Safe Work Australia website.

 Table 1 Bodies leading the National OHS Strategy 2002–2012

Organisation name	Date
Safe Work Australia (Independent Statutory Agency)	1 November 2009 – present
Safe Work Australia (Executive Agency)	July 2009 – October 2009
Safe Work Australia Council	April 2009 – June 2009
Australian Safety and Compensation Council (ASCC)	October 2005 – March 2009
National Occupational Health and Safety Commission (NOHSC)	December 1985 – September 2005

Each of the organisations listed above included a tripartite body representing state territory and Commonwealth jurisdictions, employers and unions overseeing implementation of the National OHS Strategy. Since 2009 this body was the Safe Work Australia Members.

IMPLEMENTATION OF THE NATIONAL OHS STRATEGY: AREAS REQUIRING NATIONAL ACTION

Nine Areas Requiring National Action (ARNAs) were selected as those most likely to help meet the desired outcomes of the National OHS Strategy.

All members of the tripartite bodies leading the implementation of the National OHS Strategy undertook activities in their own jurisdictions or within their area of responsibility relating to the ARNAs and focused on the national priorities. The following is a summary of the activity that occurred in these areas from 2002 to 2012. More detail on examples of the types of activities undertaken is provided in Appendix 1.

OHS data and research

Timely, comprehensive, accurate and comparable data was regarded as essential to target prevention efforts and measure progress. The National OHS Strategy identified the need to extend data coverage, develop consistent definitions and measurement principles, and enhance systems to allow timelier reporting and provision of information.

The research program matured over time and progressively collected evidence on the national priority areas which informed the development of national OHS legislation, policy and practice.

Since 2009, the data and research program was overseen by the Research, Evaluation and Data and Advisory (RED) Group. This had tripartite representatives nominated by Safe Work Australia and provided advice and assistance on national research, evaluation and data matters and facilitated collaboration and sharing among member organisations.

Comprehensive OHS data collections

In 2001 the only OHS data available on an annual basis was the *National Data Set for Compensation-based Statistics* (NDS) which was maintained by Safe Work Australia and its predecessors since 1988. Coded data related to workers' compensation claims was provided to Safe Work Australia annually by each relevant jurisdiction.

Jurisdictions worked closely with Safe Work Australia and its predecessors to improve the NDS and to create new datasets to improve the understanding of OHS. Regular annual reports were published.

Coding systems for the NDS were reviewed and revised and new editions of the NDS and the *Type* of Occurrence Classification System (TOOCS) were produced in 2004. Workers' compensation authorities also reviewed their coding practices and data extraction techniques to improve comparability of the data between jurisdictions.

The Notified Fatalities Collection (NFC) was established in 2003 with the cooperation of all OHS jurisdictions. The NFC collects more timely information on injury fatalities and includes fatalities of workers who are not covered by workers' compensation. Jurisdictions are continuing to cooperate with Safe Work Australia to improve the identification of work-related fatalities that occur on public roads.

In 2005 the ASCC established the *Traumatic Injury Fatalities Database* (TIF). The database provides the most comprehensive information on injury fatalities available and uses data from compensated fatalities, notified fatalities and coroners' information. Safe Work Australia and its predecessors worked closely with jurisdictions and state coroners' offices to improve these data. The first report using TIF was published in 2006 and covered the year 2003–04 with annual reports published since then. In 2001 the Australian Bureau of Statistics (ABS) published its first report on work-related injuries based on the results of a survey undertaken in 2000 which asked households about work-related injuries incurred in the previous twelve months.

To enhance the usefulness of the survey, NOHSC provided additional funding for the follow-up survey run over the 2005–06 financial year. The funding allowed for the sample size to be doubled and for additional questions to be asked. Safe Work Australia continues to fund the *Work-related Injury Survey* and it has become an important national data source about injuries suffered by all Australian workers including those not eligible for workers' compensation or who do not claim workers' compensation.

At the beginning of the National OHS Strategy it was recognised existing occupational injury data while not perfect were sufficient to determine priorities and measure trends in OHS outcomes. However, there were serious gaps in the information on work-related diseases, exposures to disease causing hazards, effectiveness of hazard and risk controls and emerging risks particularly to occupational health.

In 2004–05 NOHSC released reports on the estimated magnitude, severity and causes of the eight priority occupational diseases: occupational cancer, respiratory diseases, noise-induced hearing loss, musculoskeletal disorders, mental disorders, cardiovascular disease, infectious and parasitic diseases and contact dermatitis. Periodic reporting on disease trends in the *Occupational Disease Indicators* report commenced. This report used a range of data sources where available but also relied on the NDS, which was not adequate as a data source for occupational disease.

Collecting accurate information on the incidence and prevalence of occupational disease is difficult due to the nature of occupational diseases, many of which are multi-causal and/or have long latency periods between the occupational exposure and the onset of the disease. This makes identifying diseases as workrelated very difficult and in the cases of long latency diseases, such as cancer, reflects exposures occurring many years prior to diagnosis. It was agreed a more useful approach would be to collect information on the nature and extent of workers' exposures to disease-causing hazards in order to target prevention activities and measure change. This work was undertaken under the research program.

Coordinated research effort

In 2006 the ASCC requested the development and fielding of the *National Hazard Exposure Worker Surveillance* (NHEWS) survey to determine the current nature and extent of Australian workers' exposure to selected occupational disease-causing hazards.

The NHEWS survey was a collaborative project funded by the ASCC and OHS regulators and assisted by a panel of experts¹. The survey also collected information from workers about the controls provided in workplaces to eliminate or reduce these hazards. Eleven research reports have been published on different hazard exposures.

Several other national collaborative research projects examined exposure to occupational stressors, hazardous chemicals and noise and recent examples are listed in Appendix 1.

Over the last ten years the nature of work and work practices continued to change in response to economic pressures, technological advances and demographic shifts. The ASCC introduced an emerging OHS issues surveillance program to identify and respond to the OHS impacts of these changes.

In July 2006 as part of this program, the ASCC released a *Review of the Potential Occupational Health and Safety Implications of Nanotechnology*. Safe Work Australia as part of the Nanotechnology Work Health and Safety Program began commissioning research to examine this potential hazard. Overall approximately \$1.6 million was provided for OHS research from 2007 to 2012 by the Australian Government Department of Industry, Innovation, Science, Research and Tertiary Education to contribute to the National Nanotechnology Strategy and later the National Enabling Technologies Strategy.

1 Dr Tim Driscoll, Dr Anthony La Montagne, Associate Professor Wendy Macdonald, Dr Rosemary Nixon, Professor Malcolm Sim and Dr Warwick Williams

To date, nine nanotechnology research and four guidance reports have been produced.

The importance of attitudes and skills was a key concept in the National OHS Strategy. Jurisdictions undertook research projects to better understand and monitor community attitudes towards OHS from 2002 to 2012.

In the last three years Safe Work Australia began to collect data on community attitudes. In 2010 the *Motivations, Attitudes, Perceptions and Skills* (MAPS) project examined how socio-psychological factors influence OHS actions and outcomes. Information was collected from workers in the five priority industries. To date three reports have been published.

While the need for research on the effectiveness of OHS interventions was identified in the National OHS Strategy, it received very little attention until the later years. In 2010 a major research program to support the evaluation of the effectiveness of the harmonisation of work health and safety commenced. The major driver for this was the requirement by the Council of Australian Governments (COAG) to report on progress with the implementation of the harmonisation of work health and safety.

The RED Group developed an evaluation plan to enable reporting to COAG on the progress of harmonisation of the WHS legislation. The plan was approved in July 2011 and work will continue until 2017. This is the first time an evaluation plan has been developed in Australia to capture data and report on regulatory and operational approaches to OHS and their outcomes from a national perspective.

This work program provided additional impetus to expand the existing data collections on hazard exposure and attitudes begun under the National OHS Strategy and will collect new national data on the effectiveness of harmonisation. The data will also be used to inform a national picture of OHS and measure improvements over the next decade.

The Commonwealth and state and territories funded research centres and grants that contributed to an improving evidence base locally and nationally.

Evidence from the National Research Centre for OHS Regulation (NRCOHSR) informed discussions on the reform of OHS legislation, inspection and enforcement policy and practice. Communication with international OHS research bodies has also been strengthened, such as the collaboration with the Cochrane Occupational Safety and Health Review Group.

Regulatory responses under the National OHS Strategy

Nationally consistent regulatory framework

The National OHS Strategy recognised the importance of a nationally consistent approach to regulation. When the National OHS Strategy was devised, relatively modest actions to promote a more consistent regulatory framework were proposed. These were to review and develop new codes and National Standards and monitor their adoption and repeal superseded regulations.

This is an area where significant progress occurred. A consultative process for developing greater consistency in OHS regulations began in the mid 1980s and continued during the years of the National OHS Strategy.

As part of the review of National Standards and Codes of Practice, changes in approaches to developing and implementing legislation internationally and in Australia were monitored and considered. From 2002 to 2010 four new National Standards, nine new national Codes of Practice and over sixteen guidance and fact sheets were produced. These are listed in Appendix 1. Annual situation reports were also produced for all National Standards to monitor their introduction

Significant improvements in legislative consistency were achieved in the areas of manual handling, plant safety, hazardous chemicals, occupational licensing and noise. The National Standards did not have legal status and were not enforceable unless a jurisdiction adopted the provisions into their OHS regulations. There was no binding national agreement on how and when National Standards should be adopted, so the level of consistency of adoption varied. Concurrently Australian governments, as part of the National Reform Agenda aiming to reduce regulatory burdens and create a seamless national economy, were considering the importance of introducing harmonised OHS laws.

At the WRMC meeting in February 2008, Ministers agreed the use of model legislation was the most effective way to achieve harmonisation of work health and safety laws. In July 2008, the Council of Australian Governments (COAG) signed the *Inter-Governmental Agreement for Regulatory and Operational Reform in Occupational Health and Safety* (IGA). The IGA set out the principles and processes for cooperation between the Commonwealth, states and territories to implement the model legislation. This included a commitment to harmonise work health and safety (WHS) laws through a model Act, supported by model Regulations, model Codes of Practice and a National Compliance and Enforcement Policy.

The regulatory framework reform work begun as part of the National OHS Strategy was given significantly greater momentum by the COAG decisions.

Some examples of activities undertaken to develop a consistent regulatory framework and later to support the COAG directives that were undertaken from 2002 to 2012 are included in Appendix 1. Recognition of the continued importance of a nationally consistent regulatory framework was such that it was included as a national action area 'Responsive and effective regulatory framework' under the *Australian Work Health and Safety Strategy 2012–2022*.

Strategic enforcement, effective incentives, compliance support and practical guidance

Jurisdictions encouraged OHS compliance using a variety of mechanisms from education, advice and information through to enforcement actions. A summary of the compliance and enforcement activities undertaken by jurisdictions is noted in Appendix 1.

Strategic enforcement

The underpinning principles for strategic enforcement were:

- equitable, practical and consistent enforcement could be achieved by ensuring regulators' actions were proportionate to the risk of resulting harm, and
- the consequences of non-compliance were clearly understood.

To support these principles it was expected there would be benchmarking and sharing of best practice solutions, and evidence would be used to ensure enforcement activities were targeting the worst performers. It was also expected innovative sanctions would be implemented and enforcement policies would be published.

In addition to the compliance support discussed later, all jurisdictions undertook a range of enforcement actions against duty holders for non-compliance. From 2002 to 2012 they issued over 509 000 infringement, improvement or prohibition notices and finalised 5 000 legal proceedings against businesses and \$169 million in fines were handed out in Australia Courts.

From 2002 to 2012 HWSA undertook over 30 national compliance and enforcement campaigns designed to support these objectives. The 30 national campaigns represent only a small proportion of the total activity as all jurisdictions also undertook more comprehensive locally relevant compliance and enforcement activities. These were based on analysis of data and their local knowledge. Four examples of national strategic enforcement and compliance support campaigns are listed in Appendix 1 and the full list of national campaigns is on the HWSA website.

The national campaigns consolidated existing crossjurisdictional information and resource sharing and provided strong and nationally consistent messages to business and workers about the targeted hazards and risks.

In the 1990s jurisdictions began to explore a number of mechanisms at the lower end of the enforcement pyramid with the potential to directly impact those with supervisory responsibilities. Administrative penalties such as infringement notices ('on the spot fines') were first introduced in NSW in 1991 as a deterrent with great immediacy for businesses, effectively focusing their attention on the need to respond to OHS issues. One of the aims of the National OHS Strategy was to include more innovative enforcement and sanctions. Over the ten years many jurisdictions included different sanctions such as infringement notices into their suite of enforcement options.

While more common in other contexts, enforceable undertakings for breaches were progressively introduced by the OHS regulators. Queensland introduced this approach in 2003 and provided a well-developed model which was then modified and used by Tasmania, Victoria, Commonwealth and South Australia². The *National Review into Model Occupational Health and Safety laws* (2009) concluded these were a useful sanction noting the average monetary value of the accepted undertaking was significantly greater than of a court imposed fine. Enforceable undertakings were included in the model WHS Act.

Consistent with requirements under the IGA, the *National Compliance and Enforcement Policy* was published in September 2011. It set out the principles endorsed by WRMC which underpinned the approach regulators will take to monitor and enforce compliance with the WHS Act and Regulations.

Effective incentives

The National OHS Strategy acknowledged incentives could encourage employers to focus on prevention and in turn reduce the costs of workplace injury and disease.

One measure of effectiveness of prevention was changes in the workers' compensation claims rates and types. Experience-based workers' compensation premiums directed industry and specific businesses attention to the costs of workplace incidents and provided them with clear financial incentives for improving performance.

Some large government and private sector organisations began to push the real experiencedbased cost of premiums down to line areas to provide a direct and local incentive to improve performance.

Many jurisdictions offered rebates for the cost of installation of safety equipment. Rebates provided incentives for business to invest in improved plant and equipment safety, with jurisdictions often deliberately providing greater assistance to smaller businesses. The jurisdictional and later the national Annual Safe Work Awards were designed to provide non-financial recognition of excellent performance and leadership from individuals and organisations. Most jurisdictions had OHS awards and safety weeks well before the implementation of the National OHS Strategy however these increased in sophistication over the decade.

In October 2005 Safe Work Australia Week was conducted for the first time. Most Commonwealth, state and territory jurisdictions aligned their safety weeks with this national safety week. Annual Safe Work Australia Awards were developed to recognise excellence in OHS management, identify OHS solutions and recognise small business efforts to improve OHS.

Compliance support and practical guidance

The effectiveness of the regulatory framework is underpinned by compliance. Hazard and industry specific practical guidance was developed and access to consistent simple compliance advice provided particularly for small businesses.

All jurisdictions provided extensive compliance support including advisory services, information programs, and assistance in workplaces. Jurisdictions' strategic plans and annual reports show enforcement and compliance support resources were focused both on the national and local priorities.

There was strong recognition of the need to provide additional support to small business. The HWSA Small Business Network (2007–12) managed initiatives referred by or approved by HWSA. This group shared information on initiatives and programs with other jurisdictions to ensure effective assistance was being provided to small business.

The Australian Government introduced a Small Business OHS Advisers Programme (2005–07) providing funding of \$6.5 million. Delivered by the Australian Industry Group (AiG), this provided OHS advice for business with less than 20 employees.

Employer associations and unions also invested significant and on-going resources to provide their constituents with relevant information. Over the last decade the private OHS consultancy sector has also continued to expand to meet demand.

2 Western Australia has provision for enforceable undertakings however these are significantly different from other jurisdictions as they only apply if ordered by the Court following a successful prosecution.

OHS awareness and skills

OHS awareness

Raising community awareness that workplace incidents are preventable was and remains an important element in strengthening commitment to OHS. Regulators and employer and union representatives have invested significant effort raising community awareness of the serious impact on workers, their families and the Australian community of OHS failures over the last 10 years.

Advertising campaigns were used in all jurisdictions and over the life of the National OHS Strategy there was a move towards large campaigns as a strategic approach. One of the most visible examples was the *Work Safe Home Safe* (Homecomings) campaigns commenced in 2007. These were initially developed by Victoria, built on learnings from the Transport Accident Commission awareness raising model and subsequently adopted by most jurisdictions. The campaigns appealed to viewers' emotional connections to their families as a reason for protecting themselves and others from workplace harm.

Jurisdictions also developed radio campaigns targeting high priority groups. One example was the '*lt doesn't hurt to speak up*' campaigns (Victoria 2009–11) urging young people to ask questions if they were not sure how to complete a task safely.

While traditional media continued to be used many jurisdictions increasingly experimented with social media including YouTube and Facebook and telecommunicating messages through short message service (SMS) to raise awareness and alert people to topical issues. For example the New South Wales *Work Safe Home Safe* campaign reinforced its messages through social media as well as *Home Safely* kits.

OHS skills development

From the 1980s onwards the increasing adoption of a Roben's style approach to OHS regulation across Australia meant there was a move to less prescriptive and more outcome driven approaches to risk management. This in turn meant businesses needed to develop the skills in house or to buy in experts to identify and manage hazards and risks and systemically monitor their performance. The integration of OHS competencies into training at all levels including vocational, professional, inspectorate and management skills were seen as necessary outcomes. The *National Skills Development Action Plan* was developed in 2002 to support the achievement of these.

Vocational education

In 2002 NOHSC and the Australian National Training Authority (ANTA) released a statement of relationship agreeing to work collaboratively to improve OHS skills development. This resulted in ANTA requiring all Industry Skills Councils to consult NOHSC on the integration of OHS into their training packages.

When ANTA was abolished in 2005 and responsibility for the National OHS Strategy passed from NOHSC to ASCC, the Department of Education Science and Training (DEST) took on ANTA's role and a new statement of relationship was established between DEST and the Department of Employment and Workplace Relations (DEWR).

One of the significant achievements of this collaboration was developing arrangements for high risk work licensing, with the aim of ensuring nationally consistency competencies and assessment requirements.

Work by the ASCC on the *National Standard for Licensing Persons Performing High Risk Work* (2006) ultimately resulted in Part 4.5 of the model WHS Regulations. This has seen the Commonwealth states and territories move from the original certification standards in 2001 and variable high risk work implementation approaches to a national high risk work licensing scheme with endorsed high risk work units of competency and nationally mandated assessment instruments.

This nationally consistent approach for high risk work, supported by an on-going national assessment instrument continuous improvement program, assisted businesses, registered training organisations (RTOs) and accredited assessors operating across multiple jurisdictions to achieve minimum standards for such work.

OHS practitioner and professional education

Lack of clarity about the role of the OHS professional and their educational requirements had plagued the OHS profession and those who relied on their advice. In 2005 the Safety Institute of Australia (SIA) and the University of Ballarat supported by NOHSC and CCH Australia participated in an international project to clarify this issue. A summary was reported in *Profile of an OHS Professional in Australia in 2005* published in the Journal of Occupational Health and Safety.

In 2007 the ASCC released *Guidance on Preparing a Simple OHS Business Case* to support OHS practitioners. Later the same year the ASCC published a supporting training package for educators including: *Preparing an Effective OHS Business Case—Trainers' Guide and Learning Materials for a Module for OHS Practitioners.*

Between 2009 and 2012 WorkSafe Victoria funded *The Core Body of Knowledge for Generalist OHS Professionals Project.* A technical panel with representation from the Safety Institute Australia (SIA), universities teaching OHS and the Health and Safety Professionals' Alliance (HaSPA) defined the core knowledge expected of OHS professionals. This body of knowledge provided a basis for accrediting OHS professional education and for certifying individual professionals. The OHS Body of Knowledge is now being used by the Australian OHS Education Accreditation Board to inform tertiary curriculum development and for accreditation of OHS qualifications.

Unions and employer associations led training programs and developed guidance material to provide Health and Safety Representatives (HSRs), union organisers, workers, managers and supervisors with information and training appropriate to their role.

The ACTU Organising Centre developed of a curriculum for Certificate IV in Occupational Health and Safety in 2004–05 under a contractual arrangement with NOHSC, and provided accredited training via the Certificate IV in Occupational Health & Safety throughout the life of the National Strategy (NOHSC, 2005). The Ai Group has been offering Cert IV training since 2011.

School-based and pre-workforce entry education

Young workers generally have a higher risk of harm due to the types of industries in which they are employed and their lack of experience when entering the workforce. Across Australia, jurisdictions and their partners undertook a variety of programs designed to assist young people preparing to enter the workforce. Some examples of these are listed in Appendix 1.

Promoting OHS awareness amongst primary and secondary students proved to be very difficult. The ASCC attempted to negotiate the inclusion of OHS content into schools' general curriculum but strong resistance from representatives arguing the curriculum was already overcrowded meant it was unsuccessful.

Initiatives such as the program by SafeWork South Australia were more successful. It commissioned research into OHS education within schools and then adapted the Canadian sourced *Passport to Safety* program for schools to make it relevant to the Australian OHS environment. This was a voluntary safety awareness program that tested and certified students' OHS knowledge before they entered the workforce. The South Australian *Passport to Safety* program commenced in 2005 and to date has had more than 75 000 year 10 students from 120 schools registered, with sponsors so far contributing \$552 000 across the life of the program.

Inspector education

In recognition of the need to have a coordinated approach to the workplace inspector training the HWSA National Workplace Inspector Training and Development Reference Group (NWITDRG) was established. By 2007 all jurisdictions were delivering training allowing inspectors to gain nationally recognised qualifications, including a Diploma of Government (Workplace Inspection) and the Diploma of Government (Investigation). By 2009 there had been 894 qualifications issued and a further 379 inspectors in training. In 2010 the NWITDRG commenced the *Regulators' Harmonisation Project* to develop a national approach to inspectors' training to support the more consistent application of the new regulatory instruments used by jurisdictions implementing the harmonised WHS legislation. The resulting National Learning and Development Framework included core training products to be used in inspector training.

It was recognised many inspectors felt they lacked the skills and training to adequately deal with non-traditional hazards (Johnstone, Quinlan and McNamara, 2011). Queensland responded to this need by establishing teams of inspectors with skills in ergonomics and occupational hygiene who could deal with bio and psychosocial hazards and provide advice to the general field inspectors.

OHS training for managers

It was widely recognised good leadership coupled with appropriate management systems can have a positive impact on OHS outcomes. As a result, OHS issues and the need to consider these with other business risks were increasingly included in undergraduate and postgraduate management and leadership studies.

The importance of senior management in the ongoing safety culture of organisations was and will continue to be recognised under OHS legislation in the form of the positive duty for officers to provide a healthy and safe working environment.

OUTCOMES OF THE NATIONAL OHS STRATEGY

National Priority one: Reduce high incidence/ severity risks

To focus efforts on the most serious risks and the worst performing sectors, national injury and fatalities targets and priority industries were introduced.

Performance against the targets

The National OHS Strategy targets were to reduce the incidence of work-related injury fatalities by at least 20 percent and to reduce the incidence of workplace injury (including musculoskeletal disorders) by at least 40 percent by 30 June 2012. Interim targets for

30 June 2007 were to reduce work-related fatalities by 10 percent and to reduce workplace injury by 20 percent.³ The baseline for measuring progress was the three-year period 2000–01 to 2002–03. A threeyear base period was chosen to smooth much of the volatility that could result from selecting only one year.

Fatalities target

There was a 47 percent decrease in the incidence rate of work-related fatalities between the base period and 2010–11 (see Figure 2). This is more than twice what was required to meet the target of a 20 percent reduction in the incidence rate of work-related fatalities.



Figure 2 Incidence rates of work-related fatalities, Australia, base period to 2010–11

3 A standard definition of 'serious claims due to injury or musculoskeletal disorders' was used for analysis. Serious claims include all fatalities, all permanent incapacity claims and temporary incapacity claims for which one or more weeks of time lost from work has been recorded. Achievements against the national targets for injury and fatality are measured using the National Data Set for Compensation-based Statistics (NDS).

International fatalities target

Following the first triennial review of the National OHS Strategy an additional aspirational target of *'having the lowest rate of traumatic fatalities in the world by June 2009'* was adopted. Figure 3 shows while the gap between Australia and the better performing countries has reduced, the aspirational target of having the lowest rate of traumatic fatalities in the world was not met.



Figure 3 Comparison of Australia's work-related injury fatality rate with the best performing countries

Injury target

There was a 28 percent decrease in the incidence rate of serious injury between the base period and 2010–11. This was below the rate of improvement required to achieve a 40 percent reduction in the incidence rate of serious injury by June 2012 and hence Australia did not meet this target. Figure 4 below illustrates the strong downward trend in relation to this target.



Figure 4 Incidence rate of serious injury, Australia, base period to 2010-11

National priority mechanisms

Four injury mechanisms were identified where focused efforts were expected to bring short and long-term improvements in high incidence/severity risks. These were:

- Body stressing⁴ (which included manual handling injuries)
- Falls, trips and slips
- Being hit by moving objects⁵, and
- Hitting objects with a part of the body.⁶

From the baseline period to 2010–11 the number of serious injury claims has decreased by 9 percent nationally. Serious injury claims related just to the priority mechanisms decreased by 8 percent. However, over this period there was also a 26 percent increase in the total number of employees in Australia so from the base period performance had improved more than is obvious from the data below. Figure 5 shows how each of the priority mechanisms has changed over duration of the National OHS Strategy.



Figure 5 Number of serious injury and musculoskeletal claims by mechanism, Australia, base period to 2010–11

Since the commencement of the National OHS Strategy, as measured by claims data, injuries due to:

- hitting objects with part of the body has fallen by 17 percent,
- body stressing has fallen by 13 percent, and
- being hit by moving objects has fallen by 6 percent.

However Falls, trips and slips of a person, which accounted for 25 percent of all serious injury claims in 2010–11, recorded a 2 percent increase in the number of claims since the beginning of the National OHS Strategy. About two thirds (65 percent) were due to Falls on the same level with Falls from height accounting for 28 percent.

- 4 injuries or disorders resulting from stress placed on muscles, tendons, ligaments and bones
- 5 injuries resulting from an object hitting a person
- 6 injuries resulting from the motion of a person when hitting, grasping or otherwise striking objects

Priority industries

Analysis of the workers' compensation data was conducted to identify the poorest performing industry sectors. Manufacturing, Construction, Transport and storage, and the Mining industry groups were revealed as having the highest incidence and frequency rates of injury. These sectors made up about 50 percent of all compensable claims and nearly 50 percent of compensable fatalities. Health and community services sector was also identified as of interest due to its large size and high proportion of female workers.

The NOHSC initially agreed to eight priority industry groups in its National Priority Action Plan (NPAP) to reduce high incidence/severity risks. They were:

- Manufacturing
- Construction
- Transport and storage
- Health and community services.
- Agriculture, fishing and forestry
- Mining
- Wholesale trade, and
- Retail trade.

The NPAP for this priority was focused on activities with an immediate impact on achieving the national targets. At the 64th NOHSC meeting, the number of priority industries was reduced from eight to four to ensure resources were not spread too thinly. The agreed priority industries for 2003–04 were:

- Manufacturing
- Construction
- Transport and storage, and
- Health and community services.

The remaining priority industries were given further consideration in 2004–05 and considered in relation to the priority risks as work in those areas developed.

The NOHSC Business Plan, endorsed at the 67th NOHSC Meeting in March 2004 continued the focus on the 2003–04 priority industries.

The priority industries were reviewed again as part of the first triennial review of the National OHS Strategy in 2005. The recommendations of the review included adding the Agriculture, forestry and fishing industry sector to the list of priority industries. Since that review the nominated priority industries have not changed.

The following is a snapshot of outcomes in relation to all of the originally identified priority industries over the life of the National OHS Strategy.

Manufacturing

The incidence rate of serious claims in the Manufacturing industry fell 24 percent from 29.5 claims per 1000 employees in 2000–01 to 22.4 claims per 1000 employees in 2009–10. Over the three years from 2008–09 to 2010–11, 71 workers in this industry died from injuries incurred while working. This equated to 2.37 deaths per 100 000 workers which is slightly higher than the national fatalities rate of 2.23.

Construction

The incidence rate of serious workers' compensation claims in the Construction industry fell by 36 percent from 31.0 to 19.9 claims per 1000 employees between 2000-01 and 2009–2010. Over the three years from 2008–09 to 2010–11, 123 workers in this industry died from injuries incurred while working. This equated to 4.26 deaths per 100 000 workers which was nearly twice the national fatalities rate.

Health and community services

The incidence rate of serious claims in the Health and community services industry fell 19 percent since 2000–01, from 18.3 to 14.9 claims per 1000 employees in 2009–10. Over the three years from 2008–09 to 2010–11, 11 workers in this industry died from injuries incurred while working.

Transport and storage

The incidence rate of serious claims in the Transport and storage industry fell by 23 percent since 2000–01, from 31.5 to 24.0 claims per 1000 employees in 2009– 10. Over the three years from 2008–09 to 2010–11, 154 workers in this industry died from injuries incurred while working and 109 of these injuries involved a truck. This number of deaths equated to a fatalities rate of 10.98 deaths per 100 000 workers and was five times the national fatalities rate of 2.23.

Agriculture, forestry and fishing

The incidence rate of serious workers' compensation claims in the Agriculture, forestry and fishing industry fell 25 percent since 2000–01, from 29.1 to 21.9 claims per 1000 employees in 2009–10. However, this rate remains substantially higher than the rate for all industries of 13.0 claims per 1000 employees and was the third highest incidence rate of all industries in 2009–10. Over the three years form 2008–09 to 2010–11, 172 workers in this industry died from injuries incurred while working. Three-quarters of these involved a vehicle. This number of deaths equated to a fatalities rate of 16.51 deaths per 100 000 workers and was seven times the national fatalities rate of 2.23.

National Priority two: Improve the capacity of business operators and workers to manage OHS effectively

This National priority aimed to build the motivation and ability of employers to manage OHS risks effectively and of workers to work more safely and participate effectively in OHS consultations.

ABS data drawn from the *Work-related Injuries Survey* (WRIS) found in 2009–10 that 82 percent of workers had received formal occupational health and safety training in their job compared to 58 percent in the 2005–06 survey.

One initiative focused on building the capacity of business operators was the Small Business OHS Advisers Programme. It provided information and training to almost 4 500 businesses and provided on site services and completed safety plans for over 3 500 businesses.

The final report identified the following:

- 43 percent of participants completed an evaluation of the programme
- of those businesses 70 percent reported having completed all or most of the actions in their safety plan, and
- in relation to confidence levels (about their ability to manage safety) – 39 percent reported they were confident or very confident when they started the programme and this increased to 92 percent after the seminars and 98 percent after the onsite services.

There was also an expectation systematic work health and safety management guidance, training products and practical guidance to assist workplace parties to measure and evaluate the effectiveness of their prevention efforts would be made widely available.

Jurisdictions produced a large amount of material to improve the capacity of business operators and workers to manage OHS effectively. Material on jurisdictions' websites gives some indication of the extent to which expectations of guidance material being widely available have been met. Business and professional associations, work health and safety organisations, and private work health and safetyfocused businesses have all contributed to the wide availability of this material. One example the Serious about Safe Business pack developed by Queensland provides practical advice and guidance to small business including the 'Compliance at a glance: how do you rate?' checklist. It was adopted by New South Wales, Victoria, Tasmania and South Australia. Western Australia's SafetyLine initiative provided extensive practical guidance and tools for use workplaces. Similarly the ACT's ActSafe General Module, provided health and safety guidance for owners, managers, and workers of small, medium and large-sized businesses and the NT jurisdiction's website features easily available guidance material.

OHS competencies have been increasingly integrated into worker and management training courses. However anecdotal comments indicate some employers remain concerned about the quality and relevance of some training courses. These concerns indicate the need for further work to improve the usefulness and quality of courses.

There were also expectations work health and safety would be better integrated into vocational training. In 2010 the National Centre for Vocational Education Research (NCVER) released a study entitled Responding to changing skill demands: training packages and accredited courses. It looked at the changes in the work environment over the previous two decades. It found 'training packages provide a comprehensive treatment of the occupational health and safety competencies required in different industries' (NCVER, 2010. Pp. 46). Analysis showed by 2010 relevant OHS had been integrated into vocational training across a wide range of industries. Table 3 was published as part of the report and gives an indication of the scope of OHS issues and the percentages of the issues integrated into vocational training in 2010. What is not known from this report is the quality and effectiveness of the training.

Table 2 The most frequently identified issues in OHS units of competency in training packages examined (Misko, 2010, p. 51).

Issues identified in content analysis	% units
State and territory, federal or international legislation, regulations and legal obligations	98.4
Hazards and hazardous situations	98.4
Protective personal equipment and clothing	82.8
Material safety data sheets/job safety analysis, safety plans or programs, safety, policies and workplace procedures	68.8
Recording, reporting and documentation of OHS issues and events (including developing systems for these)	67.2
Following or developing required emergency procedures	64.1
Reporting of incidents or potential incidents to appropriate designated person and others	57.8
Addressing duty of care requirements	57.8
Identifying risks and applying corrective action (including development of appropriate risk management and control processes)	51.6
Addressing issues of cultural differences, barriers, and diversity, including individuals with specific needs	42.2
Understanding signage, safety guards and warning signals (including developing systems for establishing these)	40.6
Maintaining or developing suitable layout of plant or establishment and keeping work spaces clean and tidy	40.6
Maintaining and following processes for ergonomic safety	35.9
Following procedures for environmental safety and care (including storing and disposing of hazardous substances and clean areas)	29.7

The ASCC released *Guidance on preparing a simple OHS business case* in 2007 as part of building a greater understanding of the case for applying OHS management tools and how this would contribute to improved business outcomes. It provided guidance for OHS practitioners, officers and managers on how to prepare an effective business case for introducing an OHS solution at the workplace that 'sets out the reasons for the intervention, including the relevant legal obligations, and ensures that safety management is cost effective' (ASCC, 2007, pp. 1).

Over the life of the National OHS Strategy, jurisdictions have promoted the message safe business is good business and through initiatives like the *Serious about Safe Business* approach referred to above and SafeWork South Australia's *Safe Business is Good Business* information sessions. These ensured business, and particularly small business, had access to materials and information about how effective OHS management contributes to improved business outcomes. To translate this message into effective action in workplaces a range of sophisticated OHS management systems were available to business through jurisdictions, business associations, professional organisations and private sector OHS related consultants.

National Priority three: Prevent occupational disease more effectively

To sharpen the focus on the more effective prevention of occupational diseases, eight were selected as National Priorities. These were: occupational cancer, respiratory diseases, noise-induced hearing loss, musculoskeletal disorders, mental disorders, cardiovascular disease, infectious and parasitic diseases and contact dermatitis.

There was increased awareness in the last decade of the need to control occupational disease risks at source. A significant regulatory example of this was controlling exposure to asbestos through the 2003 nationwide ban on the use, import and export of all its forms. NOHSC coordinated nationally consistent action to prepare for the start of the asbestos prohibition, including development of a national list of exemptions and criteria for their enforcement. All jurisdictions strongly supported increased workplace and community awareness of the hazards and the need to safely manage and remove asbestos through advertising campaigns and practical compliance resources.

The legislative requirement to control exposures was recently reinforced in the provisions in chapter 8 of the model WHS Regulations and the 2012 model Codes of Practice: *How to manage and control asbestos in the workplace* and Codes of Practice: *How to safely remove asbestos*.

The Australian Mesothelioma Registry (AMR), funded by Safe Work Australia and Comcare, was established in 2010 to collect information on mesothelioma incidence and mortality and associated asbestos exposure both occupational and environmental. This work will help us to better understand the nature and levels of asbestos exposure that can result in mesothelioma, identify groups of workers who may still be exposed to asbestos and assist in the development of policies to best deal with asbestos still present in our environment.

Research into mesothelioma trends is relatively straightforward. As a cancer, mesothelioma is a notifiable disease under state and territory legislation meaning we have accurate information on its incidence. In addition it is nearly always associated with past exposure to asbestos and its incidence is not affected by lifestyle factors such as smoking. This is not the case with other diseases many of which are multi-causal as well as having long latency periods between the occupational exposure and the onset of the disease. This makes identifying diseases as workrelated very difficult.

The Occupational Disease Indicators Project monitored trends in indicators against the national priority occupational diseases. Biennial reports were produced; the first of which was published in April 2006. Notification data were used where available, for example for infectious diseases, but the project relied heavily on workers' compensation data which is known to significantly underrepresent the true incidence of occupational diseases.

In order to more effectively prioritise and measure national occupational disease prevention activities, the ASCC developed the *National Hazard Exposure Worker Surveillance* (NHEWS) survey. This provided better data on the exposure of workers to workplace hazards known to contribute to one or more of eight priority occupational diseases.

Figure 6 presents the data collected in the first survey in 2006, showing the percentages of workers who reported exposure to each of the hazards. At least 30 percent of workers surveyed reported exposure to direct sunlight, noise and vibration, and broadly, airborne hazards (dusts, gases, vapours, smoke or fumes) and dermal contact with chemicals. All the workers surveyed reported some level of exposure to biomechanical demands, however only 22 percent were considered to have high composite biomechanical demand exposure. **Figure 6** The percentage of workers who reported exposure to each of the workplace hazard types included in the NHEWS survey 2006



The survey provides useful baseline data but has not been repeated so it is difficult to ascertain whether improvements were made during the life of the National OHS Strategy in controlling the risk of occupational disease.

An important part of supporting more timely identification and control of exposures to hazards causing cancer, asthma and dermatitis was the development and introduction of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) into Australia. GHS is a single internationally agreed system of classifying workplace hazardous chemicals and communicating their hazards through labelling and safety data sheets. Under legislation already passed it will be made mandatory through the *Work Health and Safety Regulations* on 1 January 2017. Over the last 10 years all jurisdictions have undertaken extensive work under this priority. This has included providing practical guidance on occupational disease causing hazards in addition to campaigns such as the NSW *SmartMove* campaign aimed at reducing manual handling injuries. It has also resulted in the development of plans such as Queensland's *Asbestos Work Health and Safety Action Plan 2011–2016* and the *NSW Occupational Disease and Wellbeing Strategy 2011–15*.

National Priority four: Eliminate hazards at the design stage

An underpinning principle of the National OHS Strategy was elimination of hazards or control of risks rested at its source. Responsibility falls on a wide range of parties including designers, manufacturers, constructors or suppliers who may be external to the workplace where the hazard or risk resides. It aimed to build awareness and provide people with practical skills to recognise design issues and to ensure safe outcomes.

Research in the area of eliminating hazards at the design phase and regulatory options undertaken by the National Research Centre for Occupational and Safety Regulation (NRCOHSR) was pivotal in exploring and improving understanding.

Analysis of the coronial data from 2000 to 2002 showed 37 percent of the 210 identified workplace fatalities definitely or probably involved designrelated issues and in a further 14 percent the circumstances were suggestive of design issues being involved (Driscoll, Harrison, Bradley & Newson, 2008). This 2008 research report reinforced the importance of the on-going focus on 'Safe Design'.

In the early years of the National OHS Strategy National Standards, National Codes of Practice and guidance material were developed and provided greater clarity and national uniformity on duties in relation to safe design of buildings, plant and structures.

Jurisdictions also produced guidance including the SafeWork SA *Safe Design of Commercial Kitchens* (2004) and the Guide to the Safe Design of Aged Care Facilities (2006) and Victorian WorkSafe's *A Guide to Designing Workplaces for Safer Handling of People for Health, Aged Care, Rehabilitation and Disability Facilities* (2007).

In 2008 Professor Johnstone from the NRCOHSR noted progress in this area:

"All of the current Australian OHS statutes impose duties on upstream duty holders, but the provisions vary in their coverage and the nature of the duty. The National OHS Review Panel has proposed that the duty cover designers of plant, substances and structures; manufacturers of plant, substances and structures; builders, erectors and installers of structures; suppliers and importers of plant, substances and structures."

The obligations of designers, manufacturers, importers and suppliers of plant, structures or substances throughout the entire lifecycle were further clarified through the model WHS legislation released in June 2011. This legislative package also outlined the duties for persons conducting a business or undertaking which installs, constructs or commissions plant or structures. While the Victorian Government and West Australian Governments have not adopted the national model WHS laws, the provisions within their own legislation relating to eliminating hazards at the design stage are broadly similar.

Significant national and jurisdictional compliance support and enforcement activity focused on increasing the awareness of duty holders of their responsibilities around safe design—see examples under HWSA National Compliance Campaigns.

In 2006 ASCC developed the *Guidance on the Principles of Safe Design for Work*, and then launched an educational resource package *Safe Design for Engineering Students*. This was provided to all Australian universities with an engineering program and to the relevant professional organisations.

OHS professional bodies and research centres also promoted the safe design message and provided guidance to their members. In 2009 the Australian Institute of Architects stated 'Architects as designers are committed to improved occupational health and safety outcomes through Safe Design approaches. Safe Design processes integrate hazard identification and risk assessment early in the building procurement process'.

The National OHS Strategy recognised procurement decisions influence OHS. There is evidence of the increasing use of procurement levers to encourage the integration of safe design considerations in the construction, use and demolition stages of structures. Demonstrating adherence to safe design principles and good OHS policy and practice became part of the Australian Government Building and Construction OHS Accreditation Scheme for contractors seeking to work on Australian Government building and construction projects. This was administered through the Federal Safety Commissioner.

The ASCC and jurisdictions produced guidance urging safe design to be included in procurement decisions, for example the ASCC's *Guidance on Occupational Health and Safety in Government Procurement* (2006), *Code of Practice for OHS in the Western Australian Public Sector* (2007); and NSW WorkCover's *Safe Design of Buildings and Structures* (2009).

Australia's leadership in this safe design area was acknowledged internationally by the United States National Institute of Occupational Safety and Health (NIOSH) and others. NIOSH developed and promoted a similar national initiative called Prevention through Design (PtD) to highlight its importance in all business decisions.

While national data on changes in the exposure to hazards or risk from poor design is not available, it is a reasonable assumption the strong national and consistent focus on safer designs contributed to the decrease in injury and fatality rates from 2002 to 2012 reported under the 'Reduce high incidence/severity risks' national priority.

National Priority five: Strengthen the capacity of government to influence OHS outcomes

Governments are major employers, policy makers, regulators and purchasers of equipment and services. This National Priority aimed to improve the effectiveness of governments in securing better OHS outcomes and providing examples of good practice management of OHS within the public sector.

Government agencies adopted the national targets and used these to focus attention on the need to continuously improve their OHS performance. Ministerial responsibility for OHS performance provided opportunities to report to the relevant Cabinets on OHS outcomes, driving accountabilities for chief executives and their agencies.

Activity to improve OHS performance of governments as employers built on initiatives which some jurisdictions had already commenced prior to the National OHS Strategy. Some examples of these are noted below.

- In 2002 NSW updated their Taking Safety Seriously framework for government agencies to systematically manage OHS risks and implement effective injury management practices.
- Guidelines for Implementing an OHS Management System within the Public Sector (2007) NSW released the Occupational Health and Safety and Injury Management Improvement Standards—which provided tools for measuring performance within NSW Government Agencies.
- Leading the Way (2011) was designed to help Victorian public sector agencies implement practical strategies to improve OHS and Return to Work (RTW) performance. It provided an OHS Leadership Framework containing criteria to help assess their OHS RTW leadership 'maturity' selfassessment guides and suggested key lead and lag.
- Comcare—Cooperative Compliance Programs (2010–12) involved the introduction and monitoring of jointly agreed strategies, programs and initiatives which lead to positive outcomes.

The National Occupational Health and Safety and Injury Management Public Sector Forum (NOHSIM) comprised representatives from federal, state and territory governments who worked together to identify and apply best practice interventions to continually improve OHS within the public sector.

NOHSIM provided technical advice in the development of *Safe and Sound: A discussion paper on safety leadership in government workplaces* (ASCC, 2005). This was a guide for government OHS leadership and on measuring and reporting performance. The WRMC endorsed the five recommendations set out in Safe and Sound, which helped further focus government efforts in improving work health and safety in the public sector.

In 2012 governments employed about 16 percent of the workforce, some of which deliver services in inherently risky sectors such as policing, health care and emergency services.

Table 3 shows since 2000–01 there was a 20 percent improvement in the incidence rate of serious workers' compensation claims among Australian public sector employees.⁷ South Australia recorded the greatest improvement in incidence rate (down by 47 percent), followed by the ACT Government (down by 36 percent) and the Northern Territory (down by 28 percent). New South Wales and Victorian public sectors recorded a decrease of 26 percent and 19 percent in their incidence rates respectively. The Western Australia public sector was the only one to record a slight increase in the incidence rate (up by 8 percent) over the measurement period.

7 OHS performance in the Australian public sector over the duration of the National OHS Strategy was estimated using proxy data.

Incidence rates (nı	umber of	serious d	laims pe	r 1000 en	nployee	s) in the p	oublic sec	tor by jur	isdiction	_		
Jurisdiction	2000-	2001-	2002-	2003-	2004-	2005-	2006-	2007-	2008-	2009-	2010-	%
	01	02	03	04	05	06	02	80	60	10	11p	change Since 2001
ACTGS	26.0	20.8	22.4	21.9	20.6	20.1	19.1	15.8	17.6	16.7	16.6	-36%
Commonwealth	11.4	11.1	11.7	13.3	12.6	11.4	10.6	8.1	10.7	10.4	10.0	-12%
NSW	22.7	22.9	20.7	20.6	21.0	19.4	19.9	20.5	19.5	19.6	16.8	-26%
NT	11.4	7.7	8.7	8.4	0.0	10.6	8.3	9.5	8.4	8.9	8.2	-28%
QLD	17.5	18.4	18.8	18.6	18.8	17.4	17.2	17.0	16.2	16.7	15.8	-10%
SA	24.7	21.3	20.5	21.4	20.1	19.5	17.9	15.0	15.0	15.3	13.0	-47%
TAS	19.7	19.6	19.4	19.9	21.7	22.9	21.3	20.3	21.2	19.9	19.4	-1%
VIC	12.1	12.7	13.0	12.0	12.2	12.7	12.4	12.1	10.5	10.9	9.8	-19%
WA	12.8	12.9	14.9	15.4	15.6	14.4	13.7	13.7	13.9	13.9	13.8	8%
Public Sector Australia	17.3	17.3	17.1	17.0	17.1	16.3	16.0	15.6	15.0	15.3	13.8	-20%

Rates by jurisdiction

Table 3 Incidence rates in the public sector by Jurisdiction 2000-01 to 2010-11

Table 4 shows the greatest improvement in the incidence rate of serious workers' compensation claims was among public sector employees working in the Cultural & recreational services industry division (down by 51 percent), followed by Communication services (down by 34 percent). Incidence rates in Property & business services and in the Transport & storage industry divisions each dropped by 23 percent since the beginning of the Strategy. Finance & insurance was the only industry division to record an increase in the incidence rate of serious claims (up by 59 percent) since the beginning of the National OHS Strategy.

change since 2001 -34% -51% -20% -16% -23% -23% -20% -13% -21% 59% -8% % 2010-34.0 39.0 11p 12.2 28.2 13.8 17.8 8.0 8.8 9.6 1.7 9.1 2009-10 48.5 28.4 11.9 10.0 19.3 15.3 11.3 37.9 8.8 0.5 4.1 2008-09 26.8 18.5 11.5 45.0 15.0 17.5 12.1 36.1 9.0 1.5 9.7 2007-08 23.5 12.5 19.3 35.4 17.2 15.6 43.1 16.1 2.2 9.4 9.1 Incidence rates (serious claims per 1000 employees) in the public sector by industry division 2006-07 46.8 16.2 16.0 34.7 9.8 17.7 2.3 13.1 19.1 0.0 9.7 2005-34.6 10.5 43.2 20.2 16.3 17.5 0.6 3.6 13.7 90 9.4 8.4 2004-05 22.2 51.0 18.3 15.3 17.9 8.6 2.8 33.1 4.6 17.1 7.2 2003-04 36.5 52.8 33.6 21.5 10.3 17.0 17.7 8.0 16.1 4.2 9.1 2002-03 36.3 13.6 21.7 57.2 12.4 13.2 12.7 19.1 9.4 8.2 17.1 2001. 02 28.8 22.3 62.0 19.8 16.3 39.3 12.7 17.3 9.0 0.4 5.2 2000-01 18.5 30.8 40.3 18.0 12.0 22.7 11.9 50.7 17.3 9.1 :-Communication services Cultural and recreational Electricity, gas and water Health and community Finance and insurance Property and business Transport and storage administration and Personal and other Industry Division Government Grand Total Education defence services services services services supply

Rates by industry division

Table 4 Incidence rates in the public sector by industry division Australia 2000–01 to 2010–11

All jurisdictions also worked to strengthen the capacity of government to consider OHS during general policy development and programme implementation. Two examples of initiatives to promote the consideration of OHS during procurement are noted below.

- NSW Government OHS Management System Guidelines tenderers to provide evidence of a NSW Government construction agency accredited corporate OHS management system for contracts valued at one million dollars or more..
- Governments and their suppliers were encouraged to consider OHS in their procurement policies and practices through documents such as *Guidance on occupational health and safety in government procurement* (ASCC, 2006) developed in consultation with Comcare and the Commonwealth Department of Finance and Administration.

At the federal level, the Federal Safety Commissioner was established in 2004 to promote sustainable OHS cultural change in the building and construction industry. It developed and administered the Australian Government Building and Construction OHS Accreditation Scheme and implemented initiatives to improve OHS performance in that sector.

There was a growing awareness of the need for whole of government responses to OHS issues. Two notable but quite different examples are drawn from Queensland. In 2008 occupational, public and environmental health agencies developed a whole of government response to Queensland Hendra virus incident. In 2010 a dedicated asbestos unit was established within Work Health and Safety Queensland (WHSQ), however this sometimes struggled to get other government agencies to respond appropriately. In 2012 the Queensland ombudsman recommended the need for a stronger and more effective whole of government response to the health risks arising from exposure to asbestos. In 2012 WHSQ was named as the lead agency responsible for coordinating response to the issue by the relevant government agencies including health, local government and public works.

The principles and priorities of the National Strategy along with Ministerial endorsement from all federal, state and territory governments—provided many opportunities for government to make strategic and wide-ranging improvements to work health and safety. As discussed in previous sections, the development and the significant progress toward nationally harmonised WHS laws is the most visible evidence of governments' efforts to continually improve their performance as policy makers and regulators.

National OHS Strategy: Indicators of success

The National OHS Strategy had four qualitative indicators of success; the following section briefly addresses each.

Workplace parties recognise and incorporate OHS as an integral part of their normal business operations

There are signs workplace parties increasingly recognise the importance of OHS being an integral part of business operations. The model WHS legislation places duties on persons conducting a business or undertaking (PCBUs) requiring them to systematically incorporate OHS into normal business operations. In those jurisdictions which have not enacted harmonised legislation similar duties exist for people who have control of workplaces. There was and continues to be very significant interest from duty holders and workers in accessing information on the duties in WHS legislation. Related downloads from the Safe Work Australia, jurisdictional, and employer representatives and unions' websites have been high and large numbers have attended related forums and symposiums. National data on the effectiveness of these efforts is currently being collected and will be included in the reporting of the Australian Work Health and Safety Strategy 2012–2022.

During the 2012 Safe Work Australia Week over 670 Australians became Safety Ambassadors; a visible demonstration of their commitment to make OHS part of normal business operations.

Increased OHS knowledge and skills in workplaces and the community

Over the last ten years in Australia and internationally the scientific base behind OHS has strengthened. There was an also an increasing focus on providing people with information about the legal, ethical and economic drivers for improved performance.

In 2006 Eddington noted a dramatic increase in university courses in ergonomics, OHS law, safety science, occupational health and safety nursing, epidemiology, preventive medicine and occupational and environmental health medicine, together with managerial courses in corporate OHS.

In 2012 Pryor and Ruschena noted generally OHS was studied as a secondary discipline by matureage students on a part-time fee-paying basis. Further while 15 Australian universities offered OHS qualifications, they noted it was not highly valued as a discipline within universities, and there was difficulty in obtaining qualified and experienced OHS educators.

A survey of OHS professionals employed within larger Australian companies conducted by Safesearch (as cited in Pryor & Ruschena, 2012, p. 10) found the proportions of those holding a bachelor degree or higher qualification in OHS were:

- 59 percent of OHS/Health Safety Environment (HSE) advisors/coordinators
- 79 percent of OHS/HSE managers
- 80 percent of national OHS/HSE managers
- 82 percent of general managers OHS/HSE.

However in the last few years some of these specialist courses have been discontinued. While the demand for the professional courses remains strong, universities when determining the comparative economics of running courses have favoured those with higher student numbers. The lack of suitably qualified and experienced lecturers has also meant universities did not have the capability to run these courses. So despite the effort invested it remains unclear in the next ten years whether Australia will have the capacity to meet the future need for OHS professionals.

Since OHS training in the vocational education and training (VET) sector became competencybased in 2005 there was a rapid expansion of Registered Training Providers delivering OHS practitioner qualifications and in people taking up these qualifications.⁸ However there is considerable variation in the quality of courses and the subsequent depth of skills and knowledge. In part concerns about the quality and consistency of these courses can be linked to the atrophy of the university courses which would have provided competent teachers (Pryor & Ruschena, 2012).

Data from the 2009–10 MAPs research project shows people are concerned and interested in OHS (46 percent concerned). OHS is fourth on their list of concerns, behind road accidents (59 percent), cancer (54 percent) and diet and exercise (48 percent). Reassuringly the same data shows the majority of people in workplaces claim they have the knowledge and the confidence to put that knowledge into practice to ensure their workplace is healthy and safe.

Governments develop and implement more effective OHS interventions

All governments developed and implemented a wide range of OHS interventions to support performance improvements. The prioritisation of interventions by jurisdictions was informed by interrogation of multiple sources of local lag indicator data⁹ and increasingly over the 10 year period improving lead indicator data.

This report provides a snapshot of the very significant and sustained 10 year effort by governments to develop legislative instruments to respond to old and new hazards and risks and to provide greater clarity to duty holders about how they can keep themselves and their workers free from harm. Millions of dollars were spent by governments to improve OHS awareness and knowledge and support compliance through advertising campaigns, information, education and advisory services. Where required, jurisdictions prosecuted people for failing to meet their OHS duties, providing clear signals to the Australian community that OHS was an important issue taken seriously by regulators.

Research, data and evaluations provide better timelier information for effective prevention

At the conclusion of the National OHS Strategy it is clear there is now more timely, comprehensive, accurate and comparable data to target jurisdictional prevention efforts and to measure national progress. The National Data Set for Compensation-based Statistics (NDS) was improved through better coding and data extraction and these data are now complemented by the Work Related Injury Survey which is not restricted to workers' compensation claims.

Two new databases have been developed to provide more timely and accurate information on workrelated fatalities. The Notified Fatalities collection provides more timely information and the Traumatic Injury Fatalities database, which was collecting information from 2003. It now provides a rich source of information on common causes of fatalities.

There was less progress in the development of data on the incidence or prevalence of occupational disease. This is in large part due to the nature of occupational diseases many of which are multi-causal and/or have long latency periods between the occupational exposure and the onset of the disease. This makes identifying diseases as work-related very difficult and we are still relying on estimation methods such as population attributable fractions to estimate the incidence of occupational diseases.

Some progress however was made in collecting better information on current exposures to disease-causing agents with the first National Hazard Exposure Worker Surveillance survey.

The national body of evidence on the nature of OHS issues and importantly what works has continued to grow, funded by both grants from the Australian and state and territory governments, insurers and private organisations.

8 For example, there are 180 RTOs registered to deliver the Diploma in OHS.

9 See for example WHSQ 'harm index' and Vic WorkSafe's 'heat maps'

Significant funding from the Australian Government's Australian Research Council has resulted in projects in OHS and related fields such as toxicology, epidemiology, injury prevention, community attitudes and economic impact being undertaken across Australia.

However, the identification and adoption of national OHS research priorities was less successful. There remains serious gaps in the evidence particularly around hazard exposures, long latency disease and what interventions are the most effective and why. The proposed national research focus on collecting better data on the effectiveness of OHS management systems and on practical solutions at the workplace level especially for small business remained unrealised.

Many researchers strongly argued the move away from researcher-driven research and the research funding models which operated under the National Institute of Occupational Health and Safety within NOHSC prior to 1996 eroded the national research capability and capacity.

In the last decade the research capacity and the nature of funding of research grants has changed in Australia as it has internationally. With increasing financial pressures on national funding bodies such as the ARC and the National Health and Medical Research Council winning a grant has become more challenging.

This indicates a need to address the failing of the National OHS Strategy to sustain the effort to develop closer cooperative research partnerships between governments, industry and universities. Such partnerships would allow more resources for large projects to tackle some of the big OHS issues and reduce unnecessary duplication. The collaborative data and research initiatives which did occur have been highlighted earlier. It is also acknowledged there are growing challenges to the future Australian research capability when many of our current experienced researchers retire in the next few years. If this was to occur it would compromise Australia's future capability to provide OHS advice to business. The lessons learnt from both the successes and failures in implementing the National OHS Strategy on data, research and evaluation were noted during the development of the *Australian Work Health and Safety Strategy 2012–2022* (Australian Strategy). The Research and evaluation action area will strive to ensure:

- research and evaluation programs are targeted to provide the evidence to prioritise and progress areas of national interest
- Australia has an effective research and evaluation infrastructure and capacity
- research evidence is translated to assist workplaces to practical solutions, and
- the results of research and evaluation are more effectively disseminated and implemented.

A more concentrated effort will be required in the early stages of the Australian Strategy to identify and establish work health and safety research priorities. Work on exploring partnerships between areas concerned with public and occupational health and further work on the building of strategic alliances with key national research institutes and funding bodies are areas which influence research priorities and resource allocations. Identifying and agreeing priorities for OHS research through nationally cooperative efforts remains important in developing sound policy and practice to improve health and safety outcomes and will more readily enable research outcomes to be translated into practice.

IMPLEMENTATION MONITORING AND REPORTING

The importance of planned implementation and on-going monitoring and reporting of Australia's OHS performance was a key inclusion in the original design of the National OHS Strategy. This required:

- development, maintenance and reporting of action plans for the National Priorities and Areas Requiring National Action
- reporting progress against targets and the extent of cooperation and coordination among national stakeholders, and
- triennial reviews and reports on the efficiency, effectiveness and impact of the National OHS Strategy.

The implementation and reporting regimes that applied at the commencement of the National OHS Strategy changed over the first half of its implementation period, at least partly as a result of changes in the overseeing tripartite bodies. By 2006 the original three year action plans for the five National Priorities had lapsed and only three of the nine action plans for the ARNAs (Skills, Research and Data) had been developed.

To reduce the reporting burden the ASCC decided in 2006—following a review by Minter Ellison Consulting—to abandon the development and maintenance of action plans for ARNAs. Action plans for the National Priorities were developed for 2006–09 and included a focus on the ARNAs. These were not reissued for the final years (2010–12) but activities to support the National OHS Strategy were included in Safe Work Australia's Strategic and Operational Plans.

While the original reporting regime was not followed each year, Safe Work Australia and its predecessors published a range of reports on national progress significantly beyond that envisaged in the original design requirements. The major progress reports included:¹¹

- Annual Reports to the Commonwealth Parliament
- Annual Comparative Performance Monitoring Report Series to WRMC

- Annual Progress Report on the National OHS Strategy
- Annual National Targets Report
- Annual Progress Report against the Priority Mechanisms
- Annual Notified Fatalities Report
- Annual Mesothelioma Report: Incidence and Deaths Series
- The Monthly Notified Fatality Report
- Occupational Disease Indicator Report Series
- Asbestos Disease Related Indicator Report Series
- Cost of Work-related Injury and Illness Series
- Periodic Hospital Data on Work-related Injuries Report Series, and
- The Work-related Traumatic Injury Fatalities Report Series.

Research and evaluation reports in the key research priority themes (occupational disease, hazard surveillance, workplace culture and evaluation) which contained information on aspects of the national priorities and ARNAS were also produced.

In addition there was extensive reporting on the development and progress of the implementation of model WHS legislation. This included reports to the Select Council on Workplace Relations (the Ministerial Council), COAG.

The move away from structured approaches to implementation planning, reporting and evaluation did not mean the desired outcomes were not achieved. However it raised difficulties in evaluating which interventions and activities were most effective and why, and what could have been done differently. The absence of national Action Plans reduced the visible evidence of nationally coordinated and focused efforts in the National Priorities and ARNAs. The notable exceptions were the work undertaken to support the national WHS regulatory reform agenda, the HWSA compliance campaigns and jurisdictional advertising campaigns.

TRIENNIAL REVIEWS

Triennial reviews were required under the National OHS Strategy. The first review conducted in 2005 concluded the National OHS Strategy was contributing to OHS improvement because it: set evidence-based targets; focused national OHS improvement efforts so resources were used more effectively; established a framework that encouraged new stakeholder relationships; provided a model for OHS jurisdiction's business plans, and provided the focus for regulators' education and compliance campaigns to raise OHS and better engage with industry.

It made a number of recommendations:

- include an aspirational target for Australia to achieve the lowest rate of work-related traumatic fatalities in the world by 2009
- include Agriculture, forestry and fishing as a priority industry
- develop and implement a national framework to integrate OHS education into Australian schools
- give greater focus to the needs of small business and explore opportunities to contribute to government initiatives aimed at small business
- develop strategic partnerships with government bodies, industry and other non-government organisations, designers and suppliers of products, and employee and community groups to maximise collaborative efforts
- undertake work on a uniform approach to health and safety laws across each state and territory to enable timely and consistent implementation of National Standards
- develop and implement strategic compliance and enforcement approaches, and
- give greater attention to national communication activities, including more targeted marketing and reinforcement of messages.

The first two recommendations were formally

included in the subsequent revision of the National OHS Strategy and the remaining recommendations influenced its on-going implementation.

The second triennial review was not published as the ASCC felt it did not adequately reflect the breadth of national activity. The results were however used to inform an internal report to the ASCC November 2008 meeting where Members noted: the five priorities were still relevant; the National OHS Strategy had helped to direct national and jurisdictional resources contributing to reductions in injury rates and confirmed the jurisdictions had targets, plans and activities related to every priority area (with a few exceptions related to diseases and safe design).

Extensive public consultation was undertaken to develop the new *Australian Work Health and Safety 2012–2022* (Australian Strategy). Workshops were held around Australia between May and September 2011 and a formal eight week public consultation on the draft Australian Strategy was conducted from March to April 2012.¹¹ While the primary purpose of this consultation was to inform development of the Australian Strategy it also provided key insights into its strengths and limitations of the National OHS Strategy.

11 For details of the comments see *Development of the Australia Strategy* at http://www.safeworkaustralia.gov.au/sites/ swa/australian-strategy/pages/national-whs strategy-2012-2022

CONCLUSION

Since the introduction of the National OHS Strategy in 2002 governments and employer and union representatives have all implemented a wide range of prevention interventions in the ARNAs and the national priorities identified in the National OHS Strategy. There was a sustained and significant overall reduction in the incidence of work-related fatalities and injuries over the last 10 years. There is also evidence of improvements in the OHS performance in the national priority industries and injury mechanisms.

While there is generally not evidence of clear causal links between particular activities and corresponding OHS outcomes, it is reasonable to assume the activities undertaken have contributed to the national improvements.

There are of course things which could have been done better or differently.

At the time of the National OHS Strategy design, it was assumed implementation planning would occur after its endorsement and proceed in an orderly and systematic fashion. For a range of reasons including the changes to the overseeing bodies, on-going monitoring and evaluation were not planned or carried out as originally envisaged.

The sometimes fragmented nature of the implementation coupled with the aggregated nature of the performance data means it is not possible to draw useful conclusions about what aspects of the National OHS Strategy were more effective than others or the relative impact of particular activities. In retrospect some opportunities to build national strategic solutions from local successes were not explored.

However, notwithstanding some missed opportunities the National OHS Strategy has supported major OHS improvements in Australia. The National OHS Strategy was the subject of broad international interest and was held up as an example of a model of tripartite engagement for driving ambitious but strategic improvements in OHS at a national level. In 2004 Australia was one of 42 countries which ratified the International Labour Organisation (ILO) Convention of Occupational Safety and health (C No.155). C 155 required countries to formulate, implement and periodically review a coherent national policy on OHS in the working environment. The National OHS Strategy was used as an example in the preparatory documents for discussion at the 2005 ILO conference on a promotional framework for OHS.

Insights into the strengths and limitation of the design, implementation, monitoring and reporting of the National OHS Strategy strongly and very directly informed the design of the *Australian Work Health and Safety 2012–2022* (Australian Strategy).

The Australian Strategy was formally endorsed by Ministers of the COAG Select Council on Workplace Relations, ACTU, Ai Group and ACCI and on 31 October 2012 was launched at Parliament House. The achievements in OHS over the last decade have laid a strong foundation from which Australia can strive to meet the vision of the new Australian Strategy of 'healthy, safe and productive working lives'.

APPENDIX 1

EXAMPLE ACTIVITIES FOR AREAS REQUIRING NATIONAL ACTION

IMPROVED OHS DATA

TITLE	DESCRIPTION	CONDUCTED BY
2004	Coding systems reviewed, revised and	NOHSC and all jurisdictions
National Data Set for	published in 2004.	
Statistics (NDS) 3rd Edition		
2008	Coding systems reviewed, revised and	ASCC
Type of Occurrence Classification System (TOOCS) 3rd Edition	republished in 2008.	
2010	Revision of denominator data used to	Safe Work Australia and the
Improvements of statistical methods	calculate incidence and frequency rates, 2010	Australian Bureau of Statistics (ABS)
2003	A collection of information on fatalities	Safe Work Australia and all
Notified Fatalities Collection (NFC)	notified to jurisdictions under OHS legislation, 2003 to present	jurisdictions
2005	A database on injury fatalities using	Safe Work Australia, all
Traumatic Injury Fatalities Database (TIF)	NDS, NFC and coroner's information, 2005 to present.	jurisdictions, National Coroners Information System
2005 to present	Four yearly survey of work-related	ABS, Safe Work Australia
Work-related Injury Survey (WRIS)	injuries, 2005–06 to present.	
2010 to present	Collection of information on	Safe Work Australia, Comcare,
Australian Mesothelioma Registry	mesothelioma incidence and mortality and associated asbestos exposure, 2010 to present.	Cancer Institute NSW, Monash Centre for Occupational and Environmental Health.

OHS RESEARCH

TITLE	DESCRIPTION	CONDUCTED BY
2009 to 2014 People at Work Project	People @ Work is a psychosocial risk assessment process	University of Qld, Australian National University, Australian Research Council (ARC), Queensland, Safe Work Australia, Victoria, New South Wales and the Commonwealth
2012 Australian Workplace Barometer	Report on psychosocial safety climate and worker health in Australia. Survey undertaken in six Australian states and territories.	University of SA, ARC, South Australia and Safe Work Australia
2012 Residual Chemicals in Shipping Containers	This research was commissioned by Safe Work Australia to investigate worker exposures when unpacking shipping containers at retail warehouse or distribution centres.	Safe Work Australia and Massey University with advice from WorkCover NSW, WorkSafe Victoria, AQIS, Customs, AMSA, ACCI, Nordiko
2010 Occupational Noise Induced Hearing Loss in Australia	Occupational noise-induced hearing loss (ONIHL) is a significant health and economic problem in Australia. Between July 2002 and June 2007 there were about 16 500 successful workers' compensation claims for industrial deafness involving permanent impairment due to noise. The economic burden of ONIHL is borne by workers and their families, business owners and managers, and the wider society.	Safe Work Australia Australian Dept. of Health and Ageing with advice from academic experts and OHS regulator experts from Western Australia and Queensland.
2012 Human health hazard assessment and classification of carbon nanotubes	The report recommends multi-walled carbon nanotubes should be classified as hazardous unless toxicological or other data for specific types implies otherwise.	National Industrial Chemicals Notification and assessment Scheme, Safe Work Australia
2012 Measurements of particle emissions from nanotechnology processes, with assessment of measuring techniques and workplace controls	The Measurements of Particle Emissions from Nanotechnology Processes, with Assessment of Measuring Techniques and Workplace Controls report recommends the use of readily available handheld measuring instruments and conventional sampling techniques for airborne contaminants for measuring exposure to nanomaterials	Queensland University of Technology, Workplace Health Safety Queensland and Safe Work Australia

OHS RESEARCH

	1	I
TITLE	DESCRIPTION	CONDUCTED BY
2004 WorkCover NSW Research Centre of Excellence	Established in 2004 the WorkCover NSW Research Centre of Excellence aimed to provide excellence in research training for the prevention of workplace injury and disease. Based at University of Newcastle, the Research Centre assisted in aligning WorkCover's research framework with its corporate plan and provided a strategic basis for linking projects undertaken with key business imperatives.	WorkCover NSW and the University of Newcastle
2009 Institute for Safety, Compensation and Recovery Research (ISCRR)	Established in 2009 to facilitate research and best practice in injury prevention, rehabilitation and compensation practice, ISCRR has built an international reputation including collaborative relationships with world leading organisations such as the Institute for Work & Health in Canada and have established a 'think tank' of over 2000 engaged stakeholders. With over 100 projects underway or complete across programs of work within Occupational Health & Safety, Return to Work & Recovery, Health & Disability Services Delivery, Compensation Systems, Research Translation, and Neurotrauma, results are being used to inform and influence policy and decision making. Projects include Noise Induced Hearing Loss, Quad Bike Safety Devices and the long term Neurotrauma research program.	Collaboration between WorkSafe Victoria, the Transport Accident Commission and Monash University
2008 to present SafeWork SA Advisory Committee	Approves projects to be funded annually under SafeWork SA OHSW grant programmes. In addition from two to five supplementary scholarships are awarded annually to higher degree students undertaking OHSW projects.	SafeWork South Australia
2001 to present National Research Centre for OHS Regulation	2001 till present REGNET provides targeting research and information seminars.	Funded by NOHSC and the ASCC (2001-2007), and then by NSW, Victoria and Queensland.

SUPPORTING A NATIONALLY CONSISTENT REGULATORY FRAMEWORK

	[
TITLE	DESCRIPTION	CONDUCTED BY
2002 to 2012 United Nations Globally Harmonised System of Classification and Labelling of Chemicals (GHS)	NOHSC and its successors led the Australian delegation on the GHS Working Group from 2002 to 2012. Implementation of the GHS was an important achievement in building internationally consistent chemical compliance approaches. It is expected to improve the protection of workers health by providing an internationally comprehensible system for hazard communication, reducing the need for testing and evaluation for chemicals, and facilitating international trade in chemicals. The GHS was implemented in the model Work Health and Safety laws.	Safe Work Australia
2005 to 2012 The National Licensing Standard Implementation Group	Facilitated consistent implementation of the National Standard for the Licensing of High Risk Work (2005-12)	Heads of Workplace Safety Authorities (HWSA)
2005 to 2012 Nationally Uniform Construction Induction Training	Improved national consistency and reduced unnecessary duplication for business operators and workers (2005-12)	
2007 Core Elements of OHS	This COAG endorsed project undertaken by the ASCC to reform the national Standards framework to develop consolidated principles which should be included in a nationally consistent Act and be used as the basis for all future Standards. This work informed the 2008 national review into model Occupational Health and Safety (OHS) Laws	ASCC
2009 to present National Workplace Inspector Training and Development Reference Group	Developed shared resources and benchmarking to support agreed national inspector competencies, technical skills, knowledge and emerging issues, aligned to the National OHS Strategy	HWSA
2009 to 2012 Regulators in Harmony Project	HWSA approved a framework for all regulators to work together to develop common approaches to the administration and enforcement of uniform WHS laws. 2009-12	HWSA

National Standards

- National Standard for Manual Tasks (July 2007)
- National Standard for Licensing Persons Performing High Risk Work (December 2005)
- National Standard for Construction Work [NOHSC: 1016 (2005)] December 2004
- National Standard for Limiting Occupational Exposure to Ionising Radiation [NOHSC: 1013 (1995)] ARPANSA Radiation Protection Series No.1: Republished March 2002

National Codes of Practice

- Australian Code for the Transport of Explosives by Road and Rail 3rd edition (December 2008)
- National Code of Practice for the Prevention of Falls in General Construction (March 2008)
- National Code of Practice for Precast Tilt-Up and Concrete Elements in Building Construction (January 2008)
- National Code of Practice for the Prevention of Musculoskeletal Disorders from Performing Manual Tasks at Work (July 2007)
- National Code of Practice Induction for Construction Work (December 2006)
- National Code of Practice for the Management and Control of Asbestos in the Workplace (December 2004)
- National Code of Practice Safe Removal of Asbestos 2nd Edition [NOHSC: 2002 (2005)] (December 2004)
- National Code of Practice for Noise Management and Protection of Hearing at Work 3rd Edition (December 2003)
- National Code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition [NOHSC: 2011 (2003)] (December 2002)

Guidance material

- Benchmarking Occupational Health and Safety (December 2009)
- Stevedoring: Checklist One-Vessel/Work Environment Checklist General OHS Issues (September 2009)
- Checklist Two Vessel/Work Environment Checklist Steel Products (September 2009)
- Stevedoring: Checklist Three–Vessel/Work Environment Checklist Containers (September 2009)
- Working Safely on the Waterfront (September 2009)
- Working Safely with Containers (September 2009)
- Working Safely with General Cargo Steel Products (September 2009)
- Guidelines for integrating OHS into National Industry Training Packages (December 2007)
- Assessing and Controlling Risks from Manual Tasks (July 2007)
- Getting Students to Work Safely (December 2005)
- Guidance on Occupational Health and Safety in Government Procurement (December 2005)
- Guidance on the prevention of dermatitis caused by wet work (December 2005)
- Guidance on the principles of safe design for work (December 2005)
- Guidance on the use of Positive Performance Indicators (December 2004)
- Government Leaders Safety Leaders (December 2003)
- Guidance on OHS Reporting in Annual Reports (December 2003)

Model Work Health and Safety laws

- Model Work Health and Safety Act (June 2011)
- Model Work Health and Safety (WHS) Regulations (November 2011)
- Transitional Principles for Implementing the Model WHS Act (March 2011)
- National Compliance and Enforcement Policy (August 2011)

Stage 1 and 2 Model Codes of Practice (2011–2012)

- Abrasive Blasting Welding Processes
- Confined Spaces
- Construction Work
- Demolition Work
- Excavation Work
- First Aid in the Workplace
- Hazardous Manual Tasks
- How to Manage and Control Asbestos in the Workplace
- How to Manage Work Health and Safety Risks
- How to Safely Remove Asbestos
- Labelling of Workplace Hazardous
- Managing Electrical Risks at the Workplace
- Managing Noise and Preventing Hearing Loss at Work
- Managing Risks of Hazardous Chemicals
- Managing Risks of Plant in the Workplace
- Managing the Risk of Falls at Workplaces
- Managing the Work Environment and Facilities
- Preparation of Safety Data Sheets for Hazardous Chemicals
- Preventing Falls in Housing Construction
- Safe Design of Structures
- Spray Painting and Powder Coating
- Welding Processes
- Work Health and Safety Consultation Cooperation and Coordination

Model Guides

- Guide to the Model Work Health and Safety (WHS) Act
- Guidance on the Interpretation of Workplace Exposure Standards for Airborne Contaminants
- Controlling Risks Associated with Electroplating guide
- Guidance of the Classification of Hazardous Chemicals under the WHS Regulations
- Health Monitoring for Exposure to Hazardous Chemicals Guide for persons conducting a business or undertaking
- Health Monitoring for Exposure to Hazardous Chemicals Guide for workers
- Safe Handling and Use of Carbon Nanotubes
- Guide to the model Work Health and Safety (WHS) Regulations
- Worker Representation and Participation guide

STRATEGIC ENFORCEMENT AND COMPLIANCE SUPPORT

TITLE	DESCRIPTION	CONDUCTED BY
2005 to 2004 Manual Handling and Slips and Trips in Hospitals	The campaign highlighted OHS issues with the handling of surgical instrument sets. Jurisdictions worked with industry to develop in 2008 a national guide for the design and handling of surgical instrument transport cases and achieved the manufacture and roll out of a single transport case that could be used by all suppliers across Australia.	HWSA
2005 to 2007 Hazardous substances in the fibre-composite boat building and repair industry	The campaign provided self-assessment audit tool kits to business and then audited their compliance with hazardous substances requirements. The campaign found poor knowledge and awareness of hazardous substance legislation and compliance with requirements	HWSA
2006 to 2007 Prevention of falls in Construction	This campaign focused on prevention of falls in the housing construction and the smaller general construction industry. It also compared the level of fall prevention compliance, within the targeted construction industry sectors with results found during the earlier 2004 project. There was an overall improvement in falls prevention in the targeted sectors.	HWSA
2011 to 2012 Safe Design, Manufacture, and Supply of Plant	This campaign focused attention on eliminating hazards or controlling risk at the design and manufacturing stages by engaging and influencing upstream duty holders to ensure plant complies with current state and proposed national Work Health and Safety laws, wherever that plant was sold.	HWSA

EFFECTIVE INCENTIVES

TITLE	DESCRIPTION	CONDUCTED BY
2012 Workplace Safety Program	\$500 rebates for NSW small businesses that installed safety equipment or made modifications was part of a \$12.5 million workplace safety program	NSW WorkCover
2007 to 2009 Tractor Rollover Protection	Victorian orchardists received a \$400 rebate per machine to install ROPS on up to three tractors per farm business - 500 rebates provided.	WorkSafe Victoria
2000 to 2004 The Roll-Over Protective Structures (ROPS) Rebate Scheme	Part of the NSW Government's \$4.1 million rural safety program. Under the scheme, farmers received a \$200 rebate to fit rollover protection structures to their tractors. Rebates were also made available for power take-off guarding and for upgrading silos and field bins.	WorkCover NSW
Small and medium business programs	Free 3 hour OHS consultancy program for small business to assist workplaces manage OHS. Free 6 hour OHS consultancies as part of a targeted intervention program for medium sized employers. The programs have provided over \$7 million in assistance to 18,000 Victorian workplaces to raise awareness and build internal capability to manage OHS effectively.	WorkSafe Victoria
Grant funding	Over 100 projects costing \$21 million for a range of programs delivered by industry groups to help build OHS awareness and capability across wide range of industries and organisations.	WorkSafe Victoria

COMPLIANCE SUPPORT AND PRACTICAL GUIDANCE

TITLE	DESCRIPTION	CONDUCTED BY
2005		ASCC and the Occupational
Guidance on the Prevention		Dermatitis Research and
of Dermatitis Caused by Wet		Education Centre
Work		
2006	How to control hazardous chemical exposure in	ASCC and Australian
Essential Chemical Controls	this industry	Printers Association
for Australian Printers		
2010 to 2012	An action research program to control manual	Workplace Health and
Participative Ergonomics	tasks risks	Safety Queensland
for Manual Tasks (PEforM		
program) in Manufacturing		
2004 to 2012	An online database developed by NOHSC	NOHSC, ASCC and Safe
The Hazardous Substances	which provided easy access to information on	Work Australia
Information System (HSIS)	the hazards of chemicals, labelling information	
• • •	and legal limits for airborne contaminants	
2003 ongoing	Includes workshops and seminars, Business	WorkCover NSW
Small business safety	Advisory Officers, Mentor Program, self-	
program	assessment software, Advisory forms, Case	
program	studies and safety ambassadors, Safety	
	Solutions rebate program and balanced	
	prevention and compliance workplace advisory	
	visit program .	

OHS AWARENESS

TITLE	DESCRIPTION	CONDUCTED BY
2006 to 2012	Advertising campaign	Developed by Victoria,
Homecomings		run across Australia
2012	YouTube video	WA
New to the Job		
2012	YouTube video	Queensland
The Tiffany Ward Story		
2010	YouTube video	Queensland
Between a rock and a hard		
place—The Garry Nichols		
story		
2010	YouTube video	ACT
Work safe—Work safety it		
doesn't have to be painful		
2008	YouTube video	Victoria
Young workers—Nail gun		
2009	YouTube video	South Australia
Look after your workmates		
WorkSafe Victoria Health	Program of activities including: funding of HSR	Work Safe Victoria
and Safety Representatives	Support Officers across 40 unions and industry	
(HSRs) Website	groups; Union based HSR support website;	
	WorkSafe Awards including HSR scholarship;	
	WorkSafe Week including one day HSR conference.	
2008	'Don't be afraid to speak up' program of initiatives	Work Safe Victoria
Vouna workers	aimed at younger workers including YouTube	
I Guily WOIKEIS	videos, 'big mouth project', body part vending	
	machine.	

OHS SKILLS DEVELOPMENT

TITLE	DESCRIPTION	CONDUCTED BY
2012	Provided information on OHS for young workers	ACT WorkSafe
Guidance for Young Workers	in the ACT	
2012	Safety and health resource package for high	WA Department of
WorkSafe Smart Move	school students going on work experience and work placements. There are resources for students and teachers	Commerce
2010	Self-paced and interactive modules about how	Youthsafe and the
Talkina Safety with Youna	to effectively manage, consult and communicate	Australian Retailer's
Workers	with young workers about safety	Association, with
		support from
2006	OHS kit for secondary school students	
2000	Ons kit for secondary school students	INT WORKSale
SafeStart		
2009	Provides information on both OHS and industrial	SafeWork SA
Youth@Work	relations	
2006	To assist employers in managing the specific OHS	Queensland
Code of Practice Children and	risks associated with having children and young	
Young Workers Queensland	workers in the workplace	
2006	Outlined six key principles for teaching health	ASCC
A Guide Getting Students	and safety to students preparing to enter the	
to WorkSafely—Guiding	workplace	
principles for health and safety		
education for students in		
transition from school to work		
2010	A series of resources for young workers and those	WorkCover NSW
yPack	who supervise and manage them for field officers	
	In group training organisations, employers,	
	with NSW WorkCover funding	
	with those workcover funding.	

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