

Australian Work Health and Safety Strategy 2012–2022



MEASURING PROGRESS TOWARDS TARGETS

Reducing the incidence of work-related death, injury and illness



safe work australia



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Australian Work Health and Safety Strategy 2012–2022

Healthy, safe and productive working lives

Measuring Progress Towards Targets

Reducing the incidence of work-related
death, injury and illness

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Introduction

This guide explains how progress on the outcome **reduced incidence of work-related death, injury and illness** will be measured for the *Australian Work Health and Safety Strategy 2012–2022* (Australian Strategy).

The Australian Strategy promotes the vision of healthy, safe and productive working lives, sets four outcomes to be achieved by 2022 and identifies seven action areas that will contribute to the delivery of those outcomes.

The four outcomes areas in the Australian Strategy are **reduced incidence of work-related death, injury and illness** achieved by **reduced exposure to hazards and risks** using **improved hazard controls** and supported by an **improved work health and safety infrastructure**.

The Australian Strategy was developed through an extensive consultation process with government, industry, unions and the public. There was strong support for the adoption of targets that are achievable through sustained effort.

This guide is a supplementary document to the Australian Strategy and explains the method for target setting and measurement.

There are three specific targets to be achieved by 2022

- » 20 percent or greater reduction in the number of worker fatalities due to injury
- » 30 percent or greater reduction in the incidence rate of serious¹ workers' compensation claims, and
- » 30 percent or greater reduction in the incidence rate of serious¹ workers' compensation claims for musculoskeletal disorders.

1. Serious claims are those where the worker has been off work for one or more working weeks. One working week is defined as lost when the number of hours an employee is away from work because of their work-related injury is equal to the number of hours they usually work.

Measuring the reduction in work-related fatalities

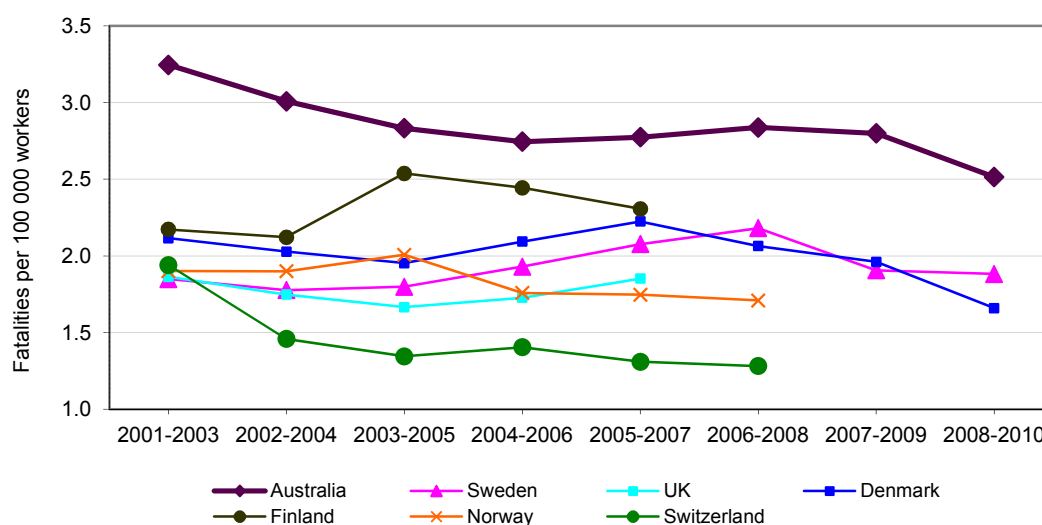
20 percent or greater reduction in the number of worker fatalities due to injury

Why was this target chosen?

A range of options for the target were considered. A percentage change in the number of fatalities caused by injury received the most support since it is easily understood and does not 'hide' increases in the actual number of deaths as can the fatality rate. For example, the fatality rate can decrease despite the number of fatalities increasing if there is an accompanying growth in the number of workers.

Despite this focus on the number of fatalities, the scale of improvement required for the target was determined with reference to the work-related fatality rates of the best performing countries worldwide. Figure 1 shows that the best performing countries have average fatality rates of around 2.0 deaths per 100 000 workers. Only Switzerland, the United Kingdom and Norway have consistently managed a rate below 2.0.

Figure 1: Best performing countries^a for work-related fatalities: three-year average fatality rates, 2001–2003 to 2008–2010



a The comparability of the data has been improved by adjusting for the different number of workers in each industry in each country but does not take into account the detailed differences in the types of mining and agriculture undertaken in Australia compared to the other countries.

Source: *Comparative Performance Monitoring Report 13th Edition*, Safe Work Australia 2011 and the Traumatic Injury Fatality Database.

The three-year average Australian fatality rate for the period 2008–2010 was 2.5 fatalities per 100 000 workers. To achieve a rate of 2.0 fatalities per 100 000 workers, a 20 percent reduction in the fatality rate is required. Achieving this reduction should bring Australia to a level similar to the best performing countries internationally.

What will be the source of information on work-related fatalities?

The Traumatic Injury Fatality database, compiled and maintained by Safe Work Australia, will be used to measure the number of injury-related fatalities in each calendar year. This database draws on the three main information sources that identify work-related fatalities in Australia. They are:

- » National Data Set for Compensation-based Statistics (NDS)
A database maintained by Safe Work Australia of all claims made for deaths, injuries and diseases that were accepted through the workers' compensation systems of Australian jurisdictions.
- » Notifiable Fatalities Collection (NFC)
A compilation of work-related fatalities notified to Safe Work Australia by jurisdiction work health and safety authorities.
- » National Coronial Information System (NCIS)
A data storage and retrieval system for coronial information intended to further research on death and injury prevention. The NCIS is managed by the Victorian Department of Justice.

Where do you start measuring?

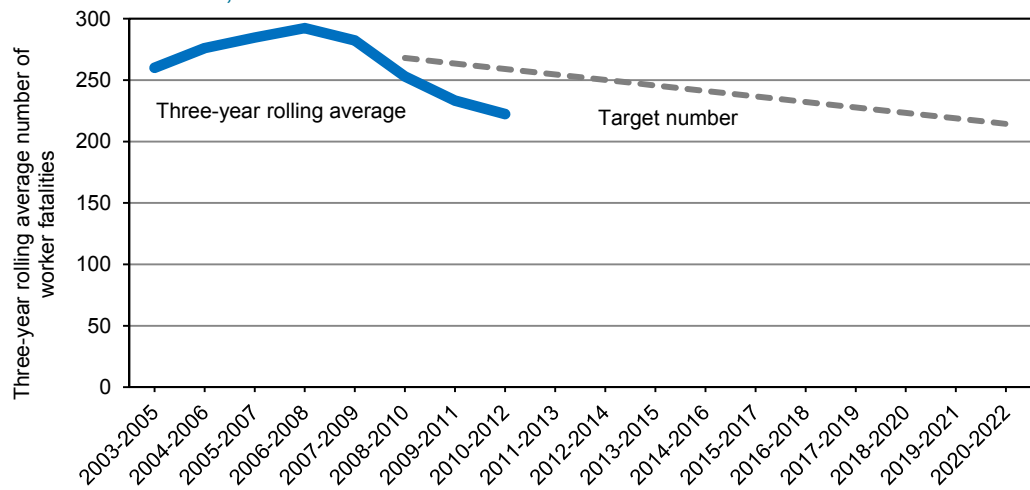
Due to the year to year volatility in the number of work-related fatalities, the base period for measurement was agreed as the average of the four years from 2007 to 2010. This equates to 268 fatalities. While the slowdown in the Australian economy as a result of the Global Financial Crisis (GFC) may have made a contribution to the relatively low number of work-related fatalities in more recent years, it is unlikely to have been the only cause. Taking a four-year average diminishes the possible impact of the GFC. From a base period number of 268 for 2007–2010, a 20 per cent reduction would equate to 214 fatalities by 2022. The end point for measuring the success of the Australian Strategy will be 2023 — when final data for the year 2022 should be available.

How do you allow for volatility in the number of work-related fatalities?

Because the number of work-related fatalities can vary considerably from year to year, measurement of progress towards the target will be made using a three-year rolling average. This guards against an unusually low number of fatalities in 2022 meeting the target by chance rather than by sustained improvement.

Figure 2 shows the number of work-related fatalities recorded in the Traumatic Injury Fatality database (TIF) from 2003 to 2012, displayed as a three-year rolling average. The graph also shows the target line starting at the base-period figure of 268 and ending at the 20 percent reduction target of 214 fatalities.

Figure 2: Worker fatalities: three-year average number of fatalities and target line, 2003–2022



Source: Traumatic Injury Fatality Database.

How challenging is this target?

Reducing the average number of work-related fatalities over a three-year period from 268 fatalities to 214 may appear relatively easy given there was an average of 222 fatalities a year over the period 2010–2012. However, this recent reduction in fatality numbers may still reflect the tail-end of the economic impact of the GFC. Economic revival and the inevitable growth in the Australian labour force over the period of the Australian Strategy will make the target challenging to achieve. This is because an overall 20 percent reduction in the number of work-related deaths will require a reduction in the fatality rate of considerably more than 20 percent by 2022. The target of a 20 percent reduction is ambitious, but considered achievable, as long as a concerted and sustained effort is made to target the most common causes of fatality in those industry sectors that experience both high numbers and high rates of fatality.

Measuring the incidence of serious compensation claims

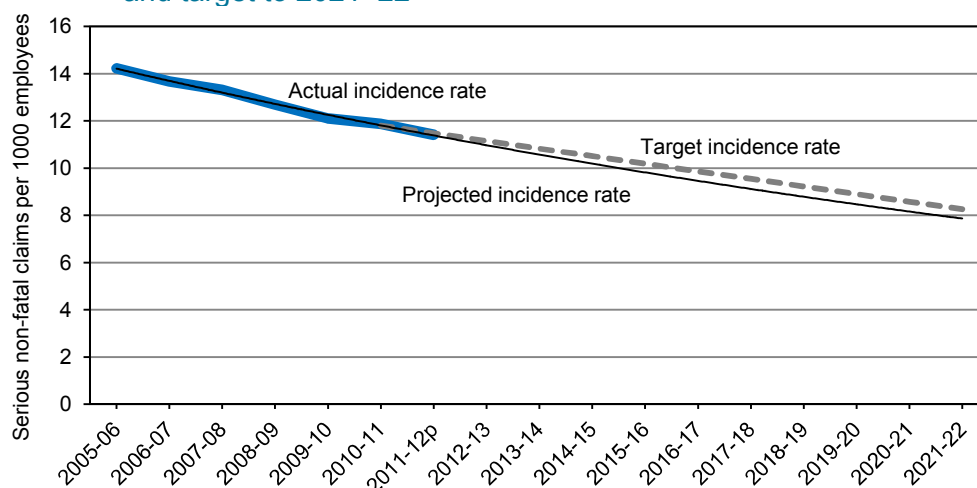
30 percent or greater reduction in the incidence rate of serious workers' compensation claims

Why was this target chosen?

A range of options for the format of the target were discussed by government, industry, unions and the public, with a percentage reduction in incidence rate receiving the most support. The target is broadly based on the improvement that could be made if recent trends are maintained for the life of the Australian Strategy. Figure 3 shows how the serious claims incidence rate has reduced in recent years and includes both a projection (exponential decrease) to 2022 based on a continuation of the current rate of improvement and the linear rate of improvement from the base period necessary to meet a 30 percent reduction target.

This projection indicates that if the current rate of improvement were to be maintained an incidence rate of around 7.9 claims per 1000 employees could be achieved by 2022. This would represent a 33 percent reduction from the average incidence rate over the 2009–10 to 2011–12 period (see footnote to Figure 3). However, the relationship between increased work health and safety preventive activities and reduced work-related injuries is unlikely to follow such a consistent pattern of decline in the long term and the target of a 30 percent reduction will be a challenge to achieve. The final base period rate and target rate cannot be determined until the preliminary 2011–12 data are updated in 2014.

Figure 3: Incidence rate of compensated non-fatal claims involving one or more weeks of compensation: 2005–06 to 2011–12^a and projected and target to 2021–22



^a Data for 2011–12 is preliminary — denoted with the letter “p”.

Source: National Dataset for Compensation-based Statistics.

What is the source of information on compensated injury and illness?

The National Data Set for Compensation-based Statistics will be used to measure progress on reducing the incidence of serious workers' compensation claims under the Australian Strategy. Serious claims include both injuries

and illness. This is different to the *National Occupational Health and Safety Strategy 2002–2012*, which had a target of reducing the incidence of injury and disease-related musculoskeletal disorders only.

Only non-fatal serious claims will be included in the target measurement:

- » **Serious claims:** those where the worker has been off work for one or more working weeks. One working week is defined as lost when the number of hours an employee is away from work because of their work-related injury is equal to the number of hours they usually work.

Serious claims were chosen as the main metric because they exclude claims involving less than a week away from work. These injuries are predominantly minor and, because they fall within the employer excess period in most jurisdictions, may also be under-counted in compensation statistics.

Where do you start measuring?

As the national number of non-fatal serious worker's compensation claims is relatively stable from year to year — though displaying the consistent decrease shown in Figure 3 — the base period for this target could be a single year, such as 2009–10. However, because jurisdictions (The Commonwealth, states and territories) and companies can experience greater year to year variation in their number of claims than the national aggregate, a three-year base period of 2009–10 to 2011–12 will be used. This will enable jurisdictions and companies to measure their progress towards the Australian Strategy from a common starting point.

At the national level, subsequent measurement of progress towards the target will be made from the three-year base period to the current single reference year. However, jurisdictions and companies may want to consider measuring their progress using three-year rolling averages.

How challenging is this target?

The target is based broadly on the current declining rate of serious non-fatal compensation claims, with the assumption that if the work health and safety environment is continually improved there will be an accompanying decrease in the number of claims. However, this relationship is unlikely to be consistent. Not only is greater effort likely to yield diminishing returns but the necessary year to year percentage reduction will slowly increase as the target date draws near: from about 2.7 percent in the first year to 3.7 percent in the final year. The target of a 30 percent reduction is ambitious, but considered achievable, as long as a concerted and sustained effort is made to target the most common causes of injury in those industry sectors that experience both high numbers and high rates of injury.

Measuring the incidence of serious musculoskeletal claims

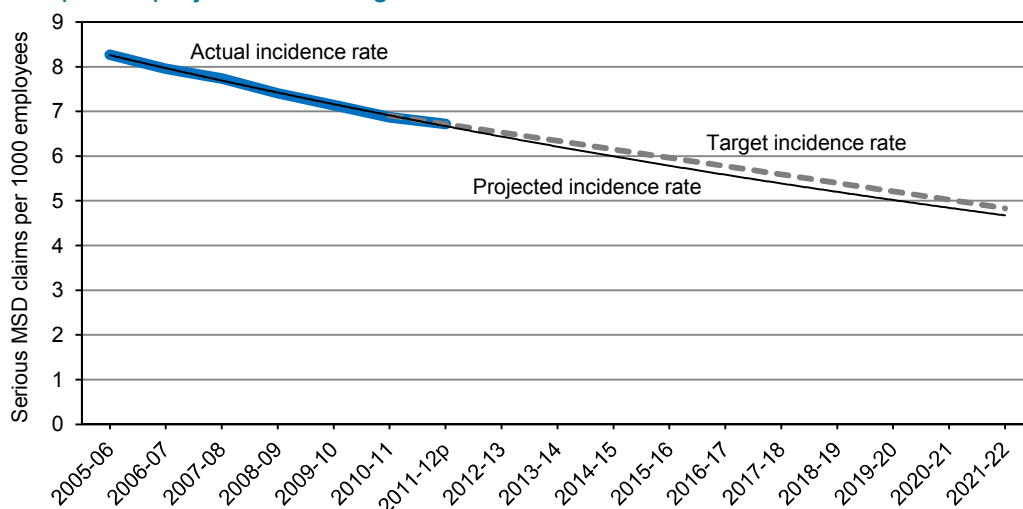
30 percent or greater reduction in the incidence rate of serious workers' compensation claims for musculoskeletal disorders

Why was this target chosen?

A range of options for the format of the musculoskeletal claims target were discussed by government, industry, unions and the public, with a percentage reduction in incidence rate receiving the most support. The proposed measure is based on the improvement that could be made if recent trends are maintained for the life of the Australian Strategy. Figure 4 shows how the incidence rate of claims for the selected musculoskeletal disorders has reduced in recent years and includes both a projection (exponential decrease) to 2022 based on a continuation of the current rate of improvement and the linear rate of improvement necessary to meet the 30 percent reduction target.

The projection indicates that if the current rate of improvement were to be maintained an incidence rate of around 4.7 claims per 1000 employees could be achieved by 2022. This would represent a 32 percent reduction from the average incidence rate over the 2009–10 to 2011–12p period (see footnote b to Figure 4). However, the relationship between increased work health and safety preventive activities and reduced work-related injuries is unlikely to follow such a consistent pattern of decline in the long term and the target of a 30 percent reduction will be a challenge to achieve. The final base period rate and target rate cannot be determined until the preliminary 2011–12 data is updated in 2014.

Figure 4: Incidence rate of compensated non-fatal claims for musculoskeletal disorders^a involving one or more weeks of compensation: 2005–06 to 2011–12^b and projected and target incidence rates to 2021–22



a Data shown comprises the Type of Occurrence System 2nd Edition (TOOCS2) codes for the *Nature of injury/disease* categories of *Sprains and strains of joints and adjacent muscles* and *Diseases of the musculoskeletal system and connective tissue*. Once national data are available the measurement will use the TOOCS3 codes of *Traumatic joint/ligament and muscle/tendon injury* and *Musculoskeletal and connective tissue diseases*.

b Data for 2011–12 is preliminary — denoted with the letter “p”.

Source: National Dataset for Compensation-based Statistics.

What will be the source of information on compensated musculoskeletal disorders?

As the National Data Set for Compensation-based Statistics is the only ongoing source of national data on non-fatal work-related injuries and illness it will be used for measuring progress under the Australian Strategy. Only non-fatal serious musculoskeletal disorder claims will be included in the target measurement:

- » **Serious claims:** those where the worker has been off work for one or more working weeks. One working week is defined as being lost when the number of hours an employee is away from work because of their work-related injury is equal to the number of hours they usually work.
- » **Musculoskeletal disorders:** comprises compensation claims made for *Traumatic joint/ligament and muscle/tendon injury* and *Musculoskeletal and connective tissue diseases*.

Serious claims were chosen as the main metric because they exclude claims involving less than a week away from work. These injuries are predominantly minor and, because they fall within the employer excess period in most jurisdictions, may also be under-counted in compensation statistics.

Where do you start measuring?

As the national number of non-fatal serious workers' compensation claims for musculoskeletal disorders is relatively stable from year to year — though displaying the consistent decrease shown in Figure 4 — the base period for this target could be a single year, such as 2009–10. However, because jurisdictions (The Commonwealth, states and territories) and companies can experience greater year to year variation in their number of claims than the national aggregate, a three-year base period of 2009–10 to 2011–12 will be used. This will enable jurisdictions and companies to measure their progress towards the Australian Strategy from a common starting point.

At the national level, subsequent measurement of progress towards the target will be made from the three-year base period to the current single reference year. However, jurisdictions and companies may want to consider measuring their progress using three-year rolling averages.

How challenging is this target?

The target is based broadly on the current declining rate of serious non-fatal compensation claims for musculoskeletal disorders with the assumption that if the work health and safety environment is continually improved there will be an accompanying decrease in the number of claims. However, this relationship is unlikely to be consistent. Not only is greater effort likely to yield diminishing returns but the necessary year to year percentage reduction will slowly increase as the target date draws near: from about 2.7 percent in the first year to 3.8 percent in the final year. The target of a 30 percent reduction is ambitious, but considered achievable, as long as a concerted and sustained effort is made to target the most common causes of musculoskeletal injury in those industry sectors that experience both high numbers and high rates of injury.

Reporting against the Strategy

Time frames

Fatalities

There is a one-year lag in the availability of adequate work-related fatality information. In addition, as further information becomes available, for example when Coroner's findings are released, the work-related status or other circumstances may be revised.

The first measurement point outside of the four-year average base period (2007 to 2010) will be the three-year average period 2011 to 2013. These data should be available by late 2014.

Workers' Compensation claims

The illustrative workers' compensation data shown in this guide uses preliminary data for 2011–12.

The base period rate (2009–10 to 2011–12) and the final 2021–22 target rate for the two workers' compensation based outcome targets cannot be finally calculated until the 2011–12 preliminary data have been updated, expected in mid to late 2014.

Progress against the targets will be measured by comparing progressive annual incidence rates to the base period rate. However, since the comparison should be made using updated rather than preliminary data, the first comparison data point for the year 2012–13 will not be available until mid to late 2015.

Reporting

Progress made against the Australian Strategy targets will be reported in a number of publications, including:

- » Annual Australian Strategy report
- » Comparative Performance Monitoring Report
- » Australian Strategy fact sheets
- » Key Work Health and Safety Statistics booklet
- » Safe Work Australia website, and
- » in *ad hoc* thematic reports.

Other Australian Strategy outcomes

A range of performance indicators will be developed to monitor progress against all areas of the Australian Strategy including the reduction of exposures to hazards and improvements in the control of hazards.

