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An Overview of Occupational Injury/Disease Statistics in Australia

Leon Straker
Curtin University of Technology
(istraker@info.curtin.edu.au)

Abstract

This paper provides an overview of recent occupational injury and disease statistics from Australia. The mechanisms for data collection and the limitations of the data sets are discussed. Information drawn from the National Data Set is presented to demonstrate the trends in injury data over an eight year period. Breakdowns of estimates of new compensation cases by nature of injury, bodily location and mechanism of injury are discussed. The cost and duration of cases is also described.

Introduction

This paper presents data on work-related compensation injuries and diseases for Australia. The national data presented were compiled by the National Occupational Health and Safety Commission from information supplied by the relevant authorities for the year 1 July 1994 to 30 June 1995. A companion paper summarises the data related to manual handling injuries in the Western Australian jurisdiction (Straker, in press).

To enhance the reader's understanding of the data provided in this paper an overview of the history of compensation data collection in Australia is provided together with a brief description of the administrative structure of Australia. The limitations of the data and the terminology used are also described.

1.1 History of Compensation Data Collection in Australia

Data on workers' compensation claims in Australia was initially collected by the Australian Bureau of Statistics and were published in annual Industrial Accident reports (1962/63-1987/88). Early data is thought to be an underestimate as it was based on compensation claims finalised in a given financial year, missing those injuries which occurred but were not finalised. Data published during the mid 1970s is thought to overestimate injuries by including many claims which did not result in at least one day of lost work time. A change in the way data was calculated further invalidates any comparisons pre and post 1981.

In 1987 the National Occupational Health and Safety Commission issued specifications for a new National Data Set for Compensation Based Statistics (WorkSafe Australia, 1987). Under the new system a worker is required to complete a claim form for any occurrence which results in a compensatable injury or disease. The employer adds details to this claim and forwards it to the insurer (in Australia this is usually a private, independent insurance

company but large companies can self insure and some government agencies also self insure). Within a month of receiving a claim involving death or one or more days of absence from work ('lost time') the insurer must pass claim details to the relevant government authority. State and Territory health and safety or compensation and rehabilitation authorities then pass this information on to WorkSafe Australia to collate into national statistics.

1.2 Organisational Structure of Compensation Data Collection in Australia

Australia is a federation of 6 States and 2 Territories: Western Australia, South Australia, Tasmania, Victoria, New South Wales, Queensland, Northern Territory and the Australian Capital Territory. The responsibility for the collection, analysis and dissemination of occupational injury and disease data is shared by the Federal government and the State and Territory governments.

In the area of occupational injury and disease data, the Federal government only has direct jurisdiction over Federal government employees, with State and Territory governments being responsible for other workers.

Further complicating the collection of data, within most jurisdictions there are two legislated structures, one dealing with occupational health and safety and one with workers' compensation and rehabilitation. Authorities established to deal with health and safety therefore commonly collect reports of hazards whilst compensation and rehabilitation authorities commonly collect compensation case information.

Thus for manual handling injuries, the Federal government has issued a Code of Practice and Standard on Manual Handling (WorkSafe Australia, 1990) which has been taken up by most States and Territories and made into regulations through State legislation. Similarly the Federal government has established a national framework for compensation data (WorkSafe Australia, 1987) which most State and Territory governments adhere to when collecting compensation data.

Although there is a steadily growing acceptance of the need for nationally compatible data, differences continue to exist in the data collected from each jurisdiction.

1.3 Limitations of the Compensation Data for Australia

The data presented in the following section is the best available estimate of Australian compensation data. The major limitations of the data are that: occupational injury and disease resulting in less than 5 days lost time are not included; data from the Australian Capital Territory has not been included, Victoria had changed the threshold to be 10 working days lost (compared to 5 elsewhere) so data from Victoria has either been excluded or an estimation made, data is not included for workers not covered by general Federal, State and Territory compensation legislation, data is also not included on injuries to military personnel, self employed workers and non compensable injuries.

1.4 Terminology

In Australia data is collected on both work-related injuries and work-related diseases. The differences between the two include the timeframe of onset (rapid for injury and slower for disease) and the diagnosis given (some recognised work-related diseases). An advantage of collecting data on both is that the differential between the two is vague and shifting. For example, there has probably been a shift over the years to diagnose some muscular strain injuries as musculoskeletal disease (WorkSafe WA, 1996). The ratio of injury to disease is

around 3.5:1 nationally. The percentage of injuries varies across Australia from around 72% in New South Wales to 91% in Western Australia. These differences may be partly due to differences in the mix of occupations in different States, but is probably more due to differences in case recording. The specific terms used to categorise data are explained briefly as each type of data is presented.

Australian New Compensation Cases 1994-1995

2.1 National injury and disease trends

The number of new cases of compensation in Australia during the financial year 1994-1995 was estimated at 176,030. The number of cases had increased over the previous three years (172,428 in 1993-4; 160,994 in 1992-3; 161,101 in 1991-2), but was down from the number of cases in 1990-1 (182,973) and the three year average 1987-8 to 1989-90 (193,363).

Absolute incidence is difficult to compare across time or country because of population changes. A quick incidence rate can be calculated by dividing the number of new cases by the population of Australia, around 18 million. However to enable more accurate comparisons incidence rates are calculated using information from the Australian Bureau of Statistics detailing the number of people in the workforce and their hours of work. Figure 1 shows the trends for work-related injury and disease cases incidence rate (per 1,000 workers) from 1987-1990 to 1994-1995. The trend suggests a decrease over the early years of the decade followed by a stabilisation and perhaps a slight increase in recent years.

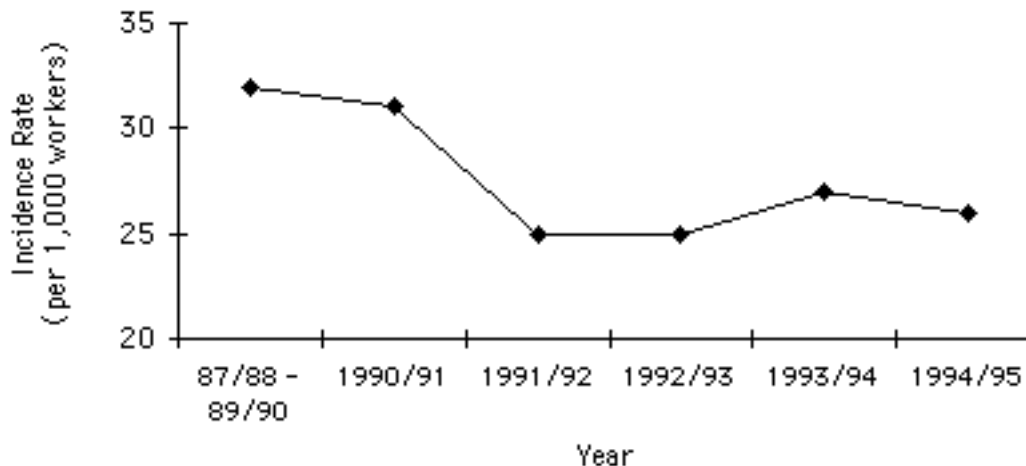


Figure 1. Trends in national injury and disease incidence rates.

Paralleling the initial decrease then plateau of number of cases is the number of working days lost, as shown in Figure 2. The average number of working weeks lost per injury/disease is also shown in Figure 2. This suggests a decrease in the severity of the impact of the injury and diseases.

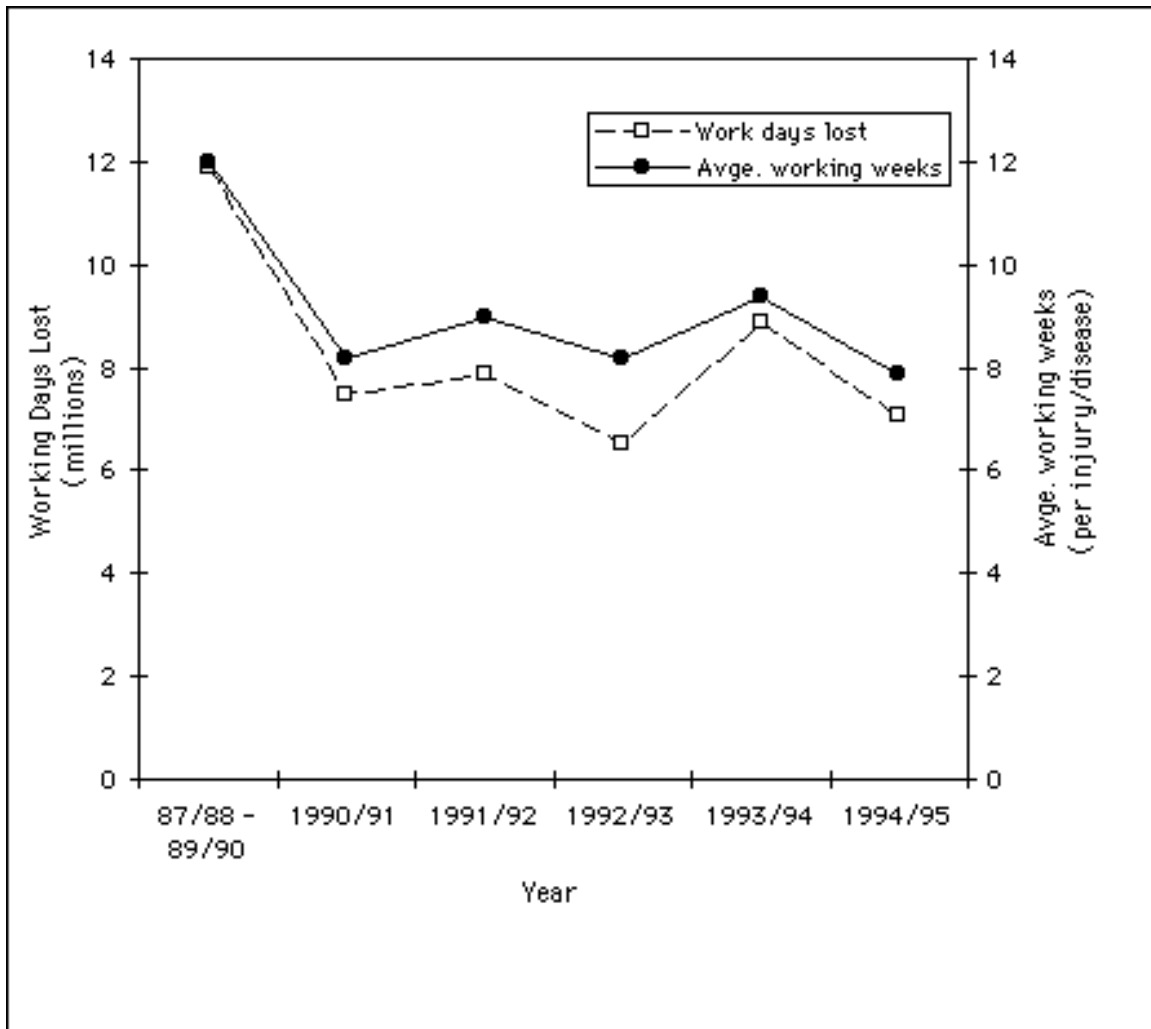


Figure 2. Trends in national injury and disease lost working time.

The trend information presented above suggests that whilst the number, rate and severity of work-related injury and disease cases fell during the late 1980s and early 1990s, there has been no improvement in the mid 1990s.

2.2 Breakdown of new national injury and disease cases 1994-1995

The illuminate the where? why? and how? of the cases, descriptions of the nature, bodily location and mechanism of injury/disease for both males and females is presented.

2.2.1 New cases by nature of injury/disease

The nature of injury/disease identifies the type of occurrence the compensation case reports, and in the case of multiple injuries or diseases, the most serious injury or disease. Figure 3 presents a summary of the six most frequent types of injury/disease, with less frequent types collated into 'other'. For both sexes the dominance of sprains and strains is apparent, accounting for around half of all cases. Many manual handling cases fall within the sprains and strains category. Interesting sex differences appear for less frequent types, with males

experiencing more deafness and open wounds whilst females experienced more mental disorders.

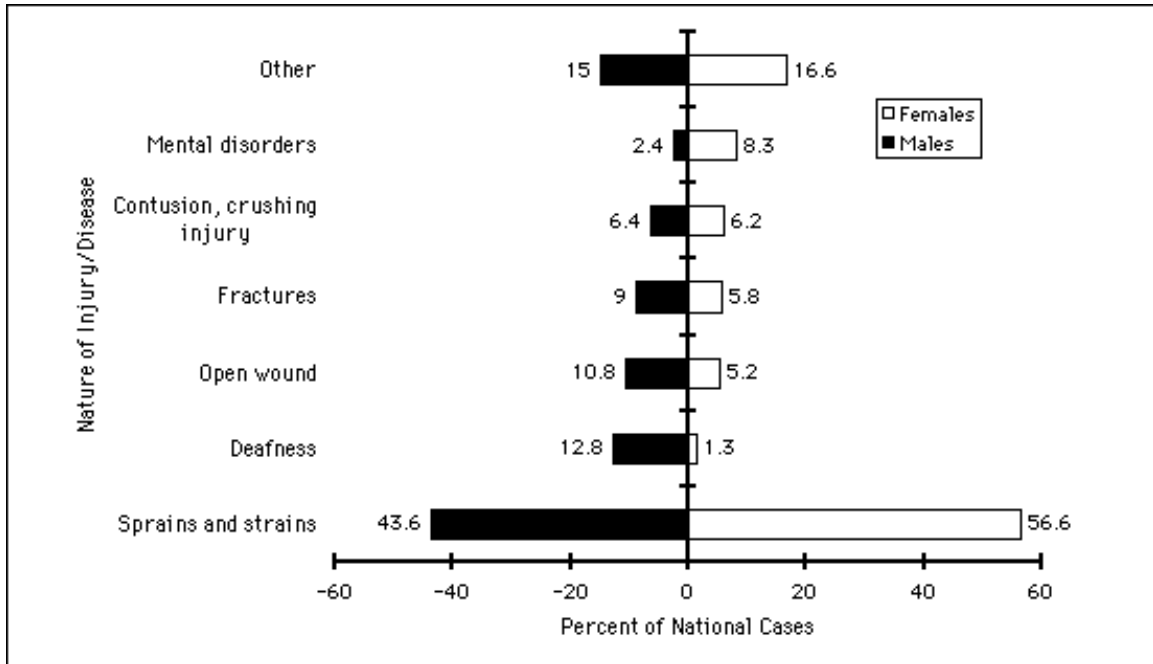


Figure 3. Distribution of national cases by nature of injury/disease.

2.2.2 New cases by bodily location of injury/disease

The bodily location of injury/disease identifies the body part affected, or most affected in a multiple site injury/disease. Figure 4 shows a summary of the six most frequent sites of injury/disease, with other sites collated into 'other'. Both males and females experience around a quarter of all injury/disease in the back area. Again, manual handling cases are often within the back injury/disease category. The next most frequent bodily locations are less than half as frequent. Hands are the second most frequent site for both males and females, but the third most frequent is different for males (ears) than females (shoulder). 'Other' includes (for both sexes together) wrist (4%), abdomen and pelvis (2%), neck (2%), eye (1%) and toes (1%). The low frequencies for eye and toes hopefully reflects the programs for use of eye and foot protective equipment.

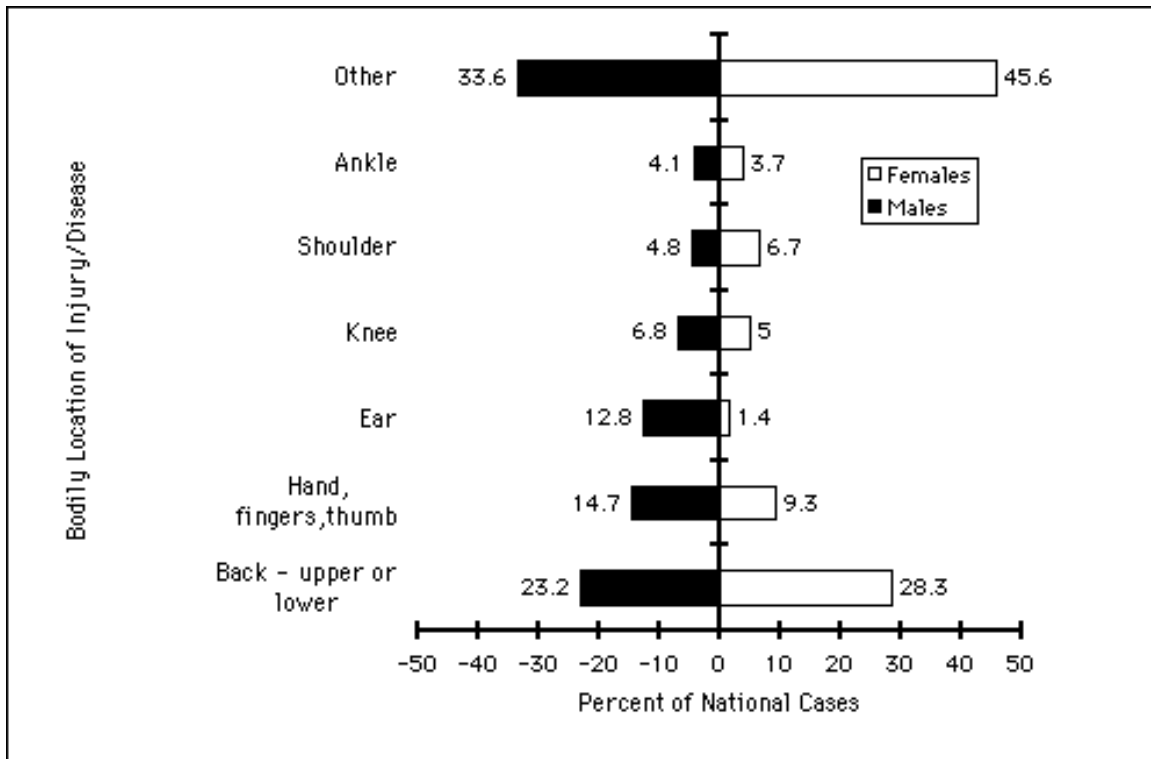


Figure 4. Distribution of national cases by bodily location of injury/disease.

2.2.3 New cases by mechanism of injury/disease

The mechanism of injury/disease identifies the action, exposure or event which was thought to be the cause of the injury (or most serious injury if multiple injuries). Figure 5 shows a summary of the most commonly cited mechanisms with 'body stressing' being by far the most common for males (34.3%) and females (47.1%). Around one half of the 'body stressing' cases involved muscular stress whilst lifting, carrying or putting down objects, with another one third involving other manual handling of objects. Only one eighth resulted from muscular stress with no objects being handled. Other body stresses included repetitive movement and low muscle loading. 'Falls, trips and slips' were the second most common category for both sexes.

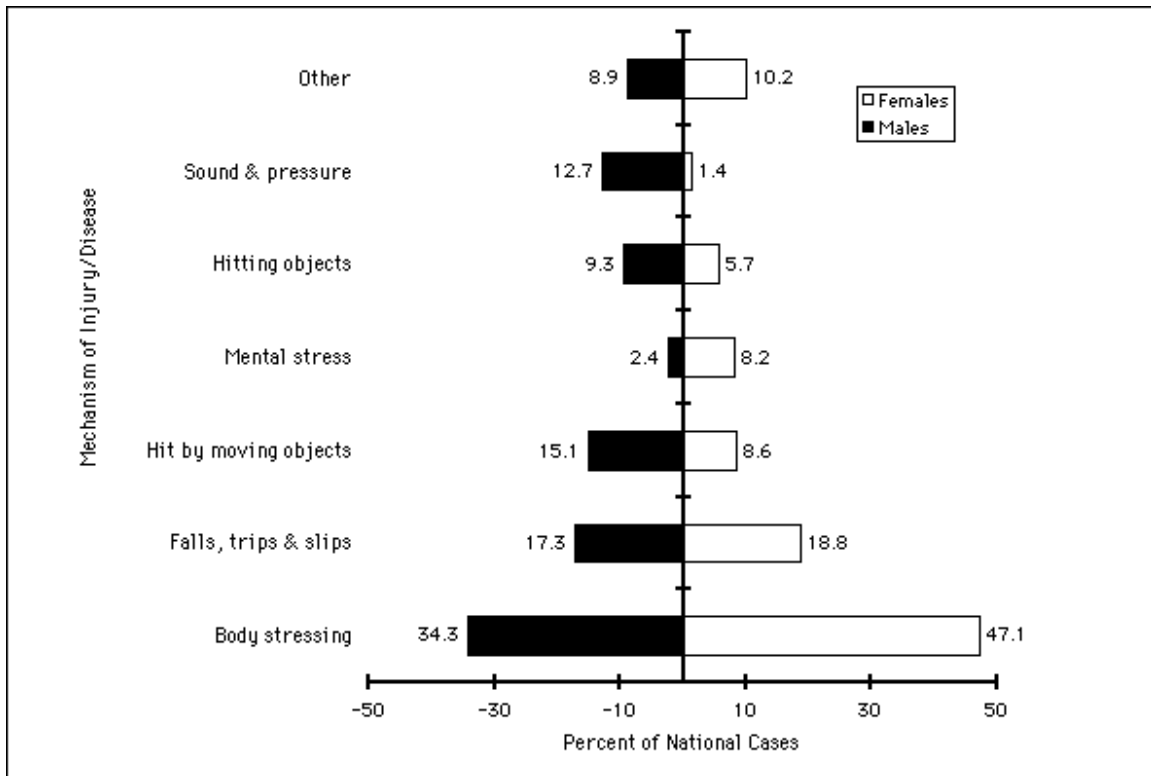


Figure 5. Distribution of national cases by mechanism of injury/disease.

2.3 Cost and duration of new national injury and disease cases 1994-1995

2.3.1 Cost of new cases by nature of injury/disease

The estimated direct cost of compensation claims in 1994-1995 was over \$1 billion, or around \$60 for every man, woman and child in Australia. This figure is an underestimate of the direct costs as not all claims were finalised at the time of collation. Further, this figure does not include any indirect costs such as increased administrative overheads, increased training costs and lost productivity. The average cost of a compensation claim in 1994-1995 was \$5,830. Figure 6 shows the average cost of cases by the nature of injury/disease, with mental disorders clearly more expensive on average. Costs for cases of injuries and diseases likely to be related to manual handling, such as disorders of soft tissues, hernias, sprains and strains, averaged around \$6,500.

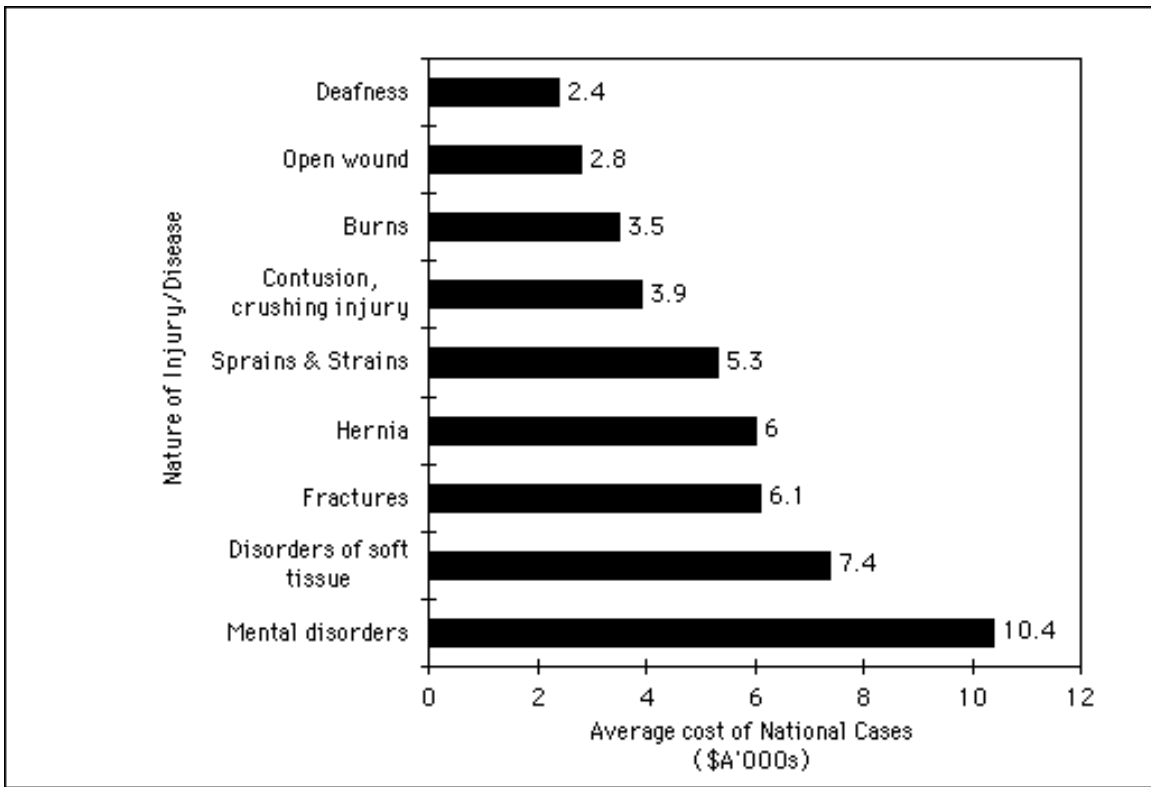


Figure 6. Average cost of cases by nature of injury/disease.

(no WA, Victoria or ACT data)

2.3.2 Duration of new cases by nature of injury/disease

The average duration of compensation claims in 1994-1995 was 7.4 working weeks. The pattern of average duration of claims by nature of injury/disease, shown in Figure 7, closely mimics the pattern for costs, as would be expected. The average duration for injuries and diseases likely to be related to manual handling was around 10.5 working weeks.

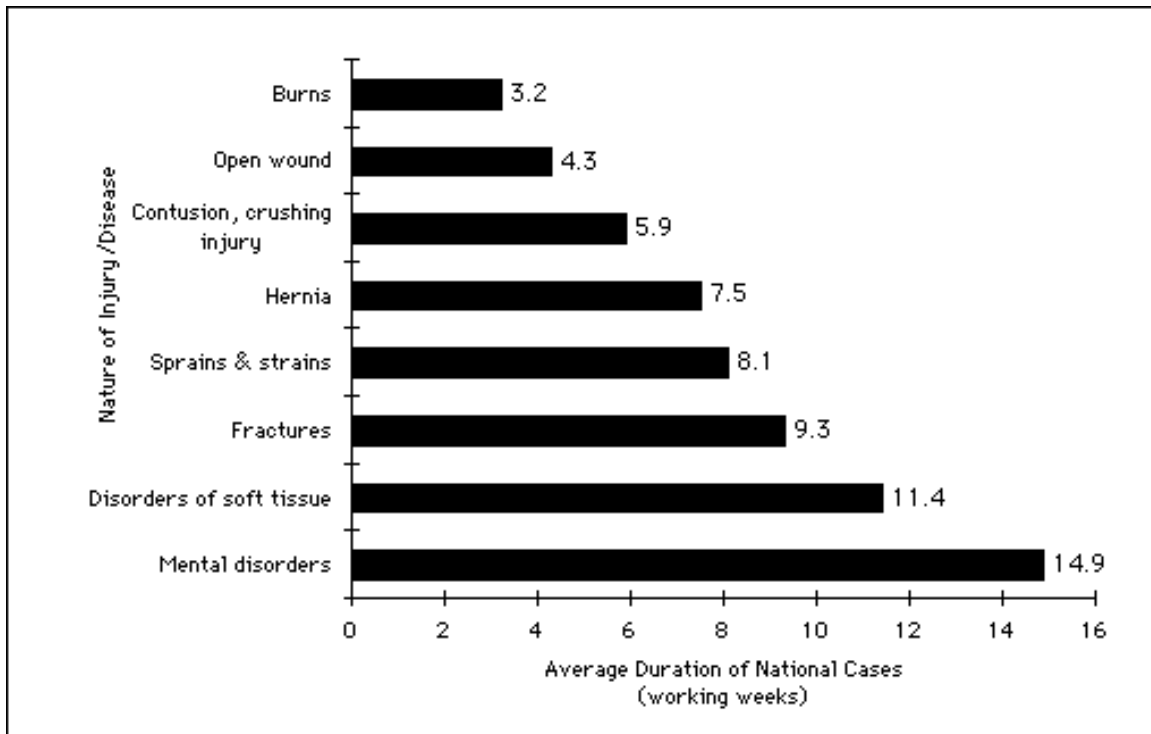


Figure 7. Average duration of cases by nature of injury/disease.

(no WA, Victoria or ACT data)

Conclusion

From the national statistics presented above it is clear that work-related injuries and diseases are a significant problem in Australia, as elsewhere.

Acknowledgments

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Further updates of Australian data can be obtained from WorkSafe Western Australia at URL <http://sage.wt.com.au/safetyline/> and from WorkSafe Australia at URL <http://www.worksafe.gov.au/>

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