Chapter 1
Introduction

1.1 INTRODUCTION

Fatal incidents have a devastating effect on the lives of many people and so should be the subject of significant preventive activity. In addition to the person killed, their family, friends, employers and workmates are all affected psychologically, socially and/or economically by the tragedy, particularly those involved in the fatal incident[1-3].

However, information on work-related traumatic death in Australia is very limited. The only previous study of work–related traumatic deaths in Australia is the original work–related fatalities study conducted by the National Occupational Health and Safety Commission (NOHSC). This utilised coronial data and covered the years 1982 to 1984 (WRFS 1[4]). The study provided the first comprehensive and reliable data on work–related fatalities in Australia. It identified relevant injury deaths on the Australian Bureau of Statistics (ABS) Deaths Data List[*] and matched these with the Registers of Births, Deaths and Marriages in each State and Territory to obtain the names of the deceased persons. The relevant coroners' files were then inspected and, if the death had been work–related, detailed information was recorded and later analysed. That study recorded between 500 and 600 people dying each year as a result of traumatic injury related to work.

The study was probably the most thorough consideration of work–related fatalities conducted worldwide. It has resulted in major published outcomes in many areas,

[*] This involved identifying registered deaths with relevant External Cause of Death codes (E-codes) for cause of death, that is, identifying nearly all deaths from external causes.

including agriculture[5], alcohol[6], comparison with overseas fatalities[7], electricity[8], migrant factors[9], fishing[10], forestry and logging and sawmills[11], forklifts[12], human factors[13], legal responses[14], machine guarding[15], road transport[16] and young workers[17] (see Appendix 1). The results have been made available to the broader OHS community nationally and internationally and have underpinned a number of important initiatives in OHS in Australia.

Although the study relates to events now 15 years old, the findings are still quoted widely because there is no other comprehensive source of information on work–related fatalities in this country. This is in part because there is no data collection system in place.

Therefore, in 1994 NOHSC began a new study of traumatic work–related deaths in Australia (WRFS 2). This project covers deaths from 1989 to 1992 inclusive, which was the most recent information that could be accessed. As with the first study, the data were obtained primarily from coronial files and, as far as practicable, the project was designed to allow the results to be compared with those of the earlier study. The project forms the basis of the study reported here.

1.2 AIM

By examining all work-related fatalities in Australia, this study aimed to make a significant contribution to the effectiveness of activity designed to prevent work–related traumatic death.

In particular, this study aimed to determine:

- how many such deaths occurred between 1989 and 1992;
- which groups of people were killed (by, for example, their age, gender, location, occupation, industry and country of birth);
- how the incidents happened and where they happened;
- the contributing factors (including procedures used, inexperience, equipment design and failure, use of personal protective equipment and the role of alcohol and drugs);
- trends over the period 1982 to 1992 (through comparison between WRFS 1 and WRFS 2); and
- trends between 1979 and 1997 (though use of routinely collected data).

The study also aimed to provide information on areas about which little has been known to date, including:

- the extent of coverage of work–related traumatic death by occupational health and safety (OHS) and compensation agencies;
- the number, type and circumstances of incidents where non-working persons were fatally injured through exposure to the working activities of other persons, whether in fixed workplaces or on public roads; and
- the number, rate and circumstances of fatal injuries occurring due to work performed in an unpaid capacity in a domestic setting.

The study results form an important bridge to the on-going information regarding work–related deaths which will be available from the National Coroners Information System (NCIS) when this system has been fully implemented.

1.3 COVERAGE OF THIS THESIS

This thesis provides detailed information on the study methodology, a detailed overview of the information gained from the examination of the coronial files relating to work–related traumatic deaths, and consideration of related aspects of the study of work-related fatalities. It provides information that can be used to:

- assess aspects of health and safety performance which are causing the major burden of fatal injury;
- assess occupations, tasks and circumstances with a high risk of fatal work–related injury;
- identify areas that may warrant attention for prevention purposes;
- identify areas which may not be well covered by existing information sources; and
- provide a source of information for education and training.

Very detailed examination of the information can provide a better insight into the problems and possible preventive approaches that might be used. This thesis does not attempt to provide such information in a comprehensive fashion, as the thesis would be unwieldy. More detailed information has already been released in the peer-reviewed literature, major reports and summary fact sheets (see Appendix 2).

1.4 USES FOR THE STUDY

This study provides information that will be useful in helping to prevent deaths from work. Also, because the circumstances that result in these deaths are very often the same as those that cause serious injury, the information from the study is more broadly useful in the prevention of many incidents causing non-fatal injury.

The study provides information of particular value to educators and researchers. This information includes how, and sometimes why, fatal incidents occur. These real-life examples of the tragic consequences of not successfully controlling work–related hazards can serve as powerful teaching tools. The study also provides information that can be used to help fill gaps in understanding about OHS issues (eg the role of alcohol in fatal work–related incidents) and that helps to identify areas that would be appropriate for further investigation and research.

Governments have a broad involvement in encouraging health and safety at work, and in determining and enforcing appropriate standards, and should find the results valuable in deciding where to direct their efforts. This includes identifying which industries have the most room for improvement, what sets of circumstances recur in incidents in which people die and could be targeted for education programs, which groups of people are most vulnerable and may justify special training effort, and when equipment failure is most likely to be calamitous and design changes should be considered. To date, governments have often designed programs to address these concerns on the basis of incomplete information[18].

Similarly, firms, industry associations and unions can utilise the information to provide a sounder basis for their activities. These may include, among other things, designing work practices to avoid the circumstances that commonly result in death, providing training courses to staff, requiring or seeking modifications in equipment design or improving information about safe and unsafe OHS practices.

Finally, the study provides information to the general public about the overall level of risk from work, about the risks of different types of work activity, and the circumstances in which deaths occur as a result of work activity. By doing this, the study can play an important role in informing the public debate about OHS issues and the importance of prevention activities.