CHAPTER 1

Introduction

1.1 Introduction

Employee health is a significant social issue in Australia because of the human suffering involved with work-related and non-work related illnesses and injuries as well as the financial costs to the individual, business and community. However, this significance is not reflected in the amount of funded research on the topic, according to several experts in the field, for example, Mayhew 2000:229–232; Quinlan 2000:213–227; and Wigglesworth 2000:94. Wigglesworth (2000:94) describes this situation as a 'current hiatus'. The present applied research addresses some of the 'current hiatus' in Australian research by adding to the cumulative knowledge about health of workers and is directed primarily towards improving employee health in the workplace. More specifically, the health of employees in the tertiary sector of the education industry is studied because Winefield et al. (2002) reported this population at risk of occupational stress. The significance of applied research is measured by the contribution that it makes to decision making (Chambers 2000:851) and to this end recommendations are developed from its

findings to assist occupational health and safety professionals, human resource managers and general workplace managers so that the health of employees is improved.

The context for this study is a public organisation (i.e. university) of approximately 1100 employees. This workplace is located in a rural community with well developed education, health and other public services.

Employee health as used here: (1) refers specifically to the health of individuals who perform work for a living; (2) focuses attention on the average forty-year period of the lifespan in which employees are in the work environment; (3) includes, but is not restricted to, the traditional concerns of work-related injury and illness; and (4) encompasses the health promotion aims of quality of life or a state of optimum health and striving to reach one's potential. Although employment status is becoming an increasingly controversial issue according to Bohle and Quinlan (2000:327), this thesis is concerned about employee health in general, rather than classifications of workers/employees for insurance purposes and therefore uses the terms worker and employee interchangeably.

1.2 The aims of this research and research questions

1.2.1 Aims of this research

The aims of the study are to:

- ***assess the health status of the employees in a specific workplace in the tertiary sector of the education industry***

- ***elaborate on factors that influence employee health as perceived by the workers themselves, and***
- ***identify what might be done, according to the workers, to improve employee health.***

The literature on work-related and non-work related illnesses and injuries that is examined in detail in Chapter 2 indicates that there is room for improvement in the state of health of employees. The last research aim is based on the assumption that there is need to advance the health status of employees above the status quo.

Hamel, Dufour and Fortin (1993:42) suggest when a social problem is being researched that it must be defined by responses to the following questions: *How does society generate the problem or phenomena under consideration? In what way is the problem or phenomena determined socially?* When researching employee health these fundamental questions are adapted to:

- *What are the factors that influence employee health in the workplace?*
- *What are the social relationships and structural practices that shape employee health in the workplace?*

The research questions are developed so that responses to these two questions can be answered by the findings of the research project.

1.2.2 Research questions

Consistent with the methodology of the research project, the two primary research questions are operationalised to the following:

i. *What is the health status of employees in a specific workplace in the tertiary sector of the education industry?*

ii. *In the opinion of workers, what factors influence employee health?*

iii. *What can be done, according to workers, to improve employee health?*

1.3 Background to the research

Employee health is important for the social and economic benefits that add materially to individual and national well being. Health is bound closely, but in a complex way, to work because there is a clear relationship between income derived from work and incidence and prevalence of specific diseases and injuries (Ziglio 2000:34).

The public health policies concerning employee health are developed from collaboration between governments and business and many disciplines are involved in investigating employee health. From the *Research Fields, Courses, and Disciplines Classifications Codes* of the Australian Research Council (2004), some of the disciplines involved researching employee health and the subjects that flow from them include:

- Public health and health services
    - Health Promotion
    - Environmental and Occupational Health and Safety
- Business and Management
    - Organisational Planning and Management
- Psychology
    - Industrial and Organisational Psychology
- Engineering and Technology
    - Safety and Quality

These disciplines have different but legitimate, perspectives on employee health which influence public health policies concerning employee health and also influence the

theories about occupational illness (Bohle & Quinlan 2000:66). Nevertheless, none of these individual disciplines has solved the difficulties that give rise to these policies (Quinlan 1993b:18). Taking a new approach, therefore, this research is interdisciplinary. The *immediate discipline* of this research is Health Promotion in the Workplace. Work and health, according to Schabracq, Winnubst and Cooper (1996:xiv) exist in an interdisciplinary arena, therefore the research problem is related to the parent disciplines of Public Health and Health Services, Business and Management, Psychology and Engineering and Technology. Although interdisciplinary work usually involves argument with established disciplines, this thesis provides productive tension to supplement and complement existing knowledge.

Over the last hundred years, theories of the causes of occupational illness have relied heavily on the evolving viewpoints of particular disciplines, for example engineering, psychology and sociology (Bohle & Quinlan 2000:66). Hale and Hovden (1998:129–131) describe a progression in the theories of occupational illness causation, extending from the early industrial period before World War I with its engineering and technical focus, through a human factors approach, to the current preoccupation with management systems. Although a comprehensive approach to employee health has developed, the complex system dynamics existing in the real workplace often mean that implementation of that approach is less than ideal (Bohle & Quinlan 2000:115–119). Hopkins (2000), in his book, *Lessons from Longford—The Esso Gas Plant Explosion* illustrates this point well. Hopkins investigates the 1999 disaster which killed two workers and cut the gas supply of the state of Victoria for two weeks. Hopkins (2000:120–124) locates the

network of causes of the disaster in five levels: physical; organisational; company; government/regulation; and social, in decreasing order of proximity from the accident. In this chain of causation there was an 'absence of mindfulness' (2000:139–151) about interpreting weak signals of malfunction that existed in each of these levels. The implementation of a comprehensive approach to safety and therefore employee health is shown to be ineffective.

The two major workplace health policy responses in Australia are the Workers' Compensation system and the Occupational Health and Safety system. The Australian compensation model is workplace based and provides part of the 'the wage earner's welfare state' (Castles 1989:21). Other public and organisational policies in Australia also influence employee health, for example, Anti-discrimination and Equity legislation, Enterprise Bargaining Agreements, and Wellness programs.

Some countries have a national scheme that covers all accidents and is integrated into the social security system (Aarts & De Jong 1992; Industry Commission 1994). The performance of these approaches, whether workplace-based or integrated, is influenced more by the social control operating in institutions, organisations and groups, rather than simply in the structure of these systems (Industry Commission 1994, 1995).

The complexities and conflict that arise between multiple stakeholders with their divergent needs of workplace health policies are succinctly summarised by Johnstone (1997:544) when he wrote about Workers' Compensation policy:

> Compensation policy assumes the characteristics of a kind of morality play in a capitalist industrial society such as Australia. Interest lies not simply in the financial costs and benefits of the compensation scheme, but also in the impact of the scheme on a variety of fragile and subtle concerns such as the maintenance of work incentives, the authority of employment relations, the allocation of blame for disablement, the promotion of accident deterrence, the preservation of professional autonomy, and the acknowledgment of worker rights.

Many authors report that these workplace health policy structures fail because the benefits are too few and the costs are too high. Foley, Gale and Gavenlock (1995:171), in reviewing the costs of work-related injury and disease, found that 'there was ample scope for improvement'. Until the Kerr Report in 1996, occupationally-related mortality was seriously underreported because occupational exposures to hazardous substances and subsequent deaths were not previously regarded as work-related (Kerr et al. 1996). Pearse and Refshauge (1987:635) refer to the 'unacceptably high levels of fatalities, occupational injuries and ill health'. Mayhew and Peterson (1999b:1) support their opinion that 'prevention efforts of recent years have failed' by referring to the 2900 work-related deaths each year and the costs to Australia of work-related injury of around 5% of the Gross Domestic Product (GDP) or at least twenty billion dollars. By comparison, in 1998 there were 2030 road fatalities in Australia (WorkCover 2002a). The schemes must meet their financial obligations to supply medical treatment and lost wages to employees and are constantly under review in an attempt to fulfill these requirements. The sheer size of the financial costs involved in managing work-related injury and illness means that Workers' Compensation insurance is the second largest area of private insurance after motor vehicle insurance (Bohle & Quinlan 2000:342).

The Australian workplace has undergone changes in the last twenty years. There are increased demands from globalisation of the economy and the rapid development of communication technology. Under the pressures of economic rationalism, the workforce has been and is affected by the decentralisation of industrial relations and an almost complete reliance on enterprise bargaining for wage increases (Crittall 1995:587–593; Horstman 1999:325–341). Economic rationalism allows the free market and its competitive forces to decide economic and social priorities. Although enterprise bargaining affects critical issues like hours of work, patterns of labour, new technology, multi-skilling and piece-rate payment, Crittal's (1995:587) research found that occupational health and safety issues are largely ignored in the enterprise bargaining process. These changes have moved employee health even further from industrial negotiations (Creighton & Gunningham 1985; Quinlan 1993a:140–169).

These workplace changes have meant the decline in full-time employment and a corresponding expansion of 'precarious' employment (Quinlan & Mayhew 1999:491), that is, an increase in the use of shiftwork/nightwork, telecommuting, home-based work, part-time, multiple job holding, temporary employment and contract employment. Fragmentation of internal labour markets is an international trend according to Rubery (1999:116–137). Quinlan and Mayhew (1999:491–493) state the expansion of 'precarious' employment and the changing nature of work affect the patterns of workplace injury and disease and threaten to undermine existing regulatory regimes. As a result, workers' inputs into workplace health policy have been further reduced. Workers and their unions do not participate in the numerous inquiries into these schemes to the

same degree that government officials, technical experts, lawyers and medical practitioners do (Industry Commission 1994, 1995) and at the workplace the formal requirements for employee participation through risk management 'overstate worker influence' (Per Oystein Saksvik & Quinlan 2003:37).

Although the concept of work environment was previously well-defined by its physicality (Allvin & Aronsson 2003:109), changes in work practices have expanded the concept to take account of the psychosocial environment. Problems in the psychosocial environment, for example, personnel problems, *stress*, *burnout*, difficulties in co-operating and harassment, involve the individual worker's ability to cope with work and his/her fellow workers. The expansion of the concept is associated increased recognition that the workplaces are politicised and there is increased complexity regarding employers' responsibilities (Allvin & Aronsson 2003:99–111).

There are changing views about health in contemporary society (Grbich 1996, George & Davis 1998) and these views do not rely only on the biomedical model of orthodox Western medicine in which health is viewed as the individual's responsibility; is defined as the absence of illness (Holmes, Hughes & Julian 2003:250); and is driven by the interests of corporations (Lax 2002:519). The main challenge to the biomedical view of health is its ineffectiveness in the context of escalating costs of health care (Nettleton 1995:5-8). Changing views of health incorporate the following: the consumers' perspective of health; epidemiological studies of health inequalities that show the rich enjoy better health than the poor (Holmes, Hughes & Julian 2003:278); and sociological

studies about health and illness as socially constructed phenomena (Dembe 1996, 1999; Illich 1977; Marmot 1996; Navarro 1978). This has contributed to a broader and more ecological view of health than the biomedical model alone envisions (Murray 2001:220).

A multi-dimensional view of health is now considered to have social, mental, spiritual, emotional and physical elements (Cribbs & Dines 1993). This view of health is reflected in documents like the Ottawa Charter for Health Promotion (WHO 1986). Health promotion according to the Charter is:

> the process of enabling people to increase control over, and improve their health. To reach a state of complete physical, mental and social well being, an individual or group must be able to identify and realise aspirations, to satisfy needs and to change or cope with the environment. Health is, therefore, seen as a resource for everyday life, not the objective of living. Health is a positive concept emphasising social and personal resources, as well as physical capacities.

The Charter also recognises that the organisation of work should help create a healthy society. In creating supportive environments at work, workplace health promotion changes from a singular focus on individual behaviour to 'recognition of the broader social, environmental and economic determinants of health' (O'Connor-Fleming & Parker 2001:231).

The multi-dimensional view of health has not yet penetrated far into the regulatory regimes that influence employee health. In Australia, as in the United Kingdom, there is an historical and legislative separation of health services and prevention strategies in the general community as well as for employees. Wilkinson (2001:152) describes this process in the workplace with health promotion and occupational health and safety

operating in isolation from each other and having different intervention targets, personnel and methods.

The 'settings' approach in the Ottawa Charter recognises that the social, psychological and physical contexts in which people live and work shape their opportunities and choices in relation to health. This approach has been applied to employee health in a variety of workplaces settings including universities (Dooris 2001:58).

Current workplace health policies develop out of a certain political economy. Considine (1991:7) defines this political economy as the landscape in which the principal actors move. This landscape is made up of policy environment that deals with economic and organisational relationships and government authority. Throughout the history of Workers Compensation and Occupational Health and Safety legislation there has been resistance to workers' claims and opinions. This echoes the adversarial approach to all other employer/employees affairs. This present research addresses an imbalance that has existed in who determines the shape of those policies. Giddens (1979:5) makes the point that people can influence the social structures in which they live.

1.4 Justification of the research

This research is justified on two fronts:

i. it will provide new knowledge concerning the perspectives of those subjected to, or affected by workplace health policies and will provide recommendations to improve employee health

ii. this research is a new approach to an old problem, in that it seeks opinions about employee health from all the employees in one workplace who belong to an industry that has been recognised by prior research as being at risk of occupational stress.

Conventional perspectives which generally dominate policy development are those of business and governments with the contribution of employees being subordinate to these other stakeholders (Per Oystein Saksvik & Quinlan 2003:37). The justification for this research lies in challenging these powerful conventional perspectives. It is important to understand the perspectives of employees who bear the brunt of the implementation of workplace health policies.

At a more fundamental level justification for this present research is found in the answers to four linked key questions that are modified from Freeman and Rogers' work (1999:8–14):

i. Why care what health the employees want when there is legislation to protect them from harm?

ii. Why care what health the employees want when they can switch to another job if they are not happy? Anyway, unhappiness is not illness.

iii. Why care what health the employees want when they are healthy enough to work?

iv. *Why care about what health the employees want when the state, employers, unions, the professions and experts design and implement policy and structures for employees' well being?*

1.4.1 Legislation is not entirely adequate

The first *Why care* question challenges collective and individual responsibilities for personal health. Although it can be argued that there is legislation to protect them, its collective contribution to individual health is not entirely adequate. For example, the pragmatic political process involving governments, business and professions ensures that workplace health policy is subjected to myths of crisis over compensation funding obligations, but in essence, harm to workers may not be reduced (Mayhew & Peterson 1999a:2). The ability of individual workers to look after their health is compromised by their lack of power in a system that does not optimise the potential synergies between individual and collective action. Workplace governance prioritises organisational production over employee welfare and the workers do not have power and/or knowledge to control risks in the work environment (Ziglio 1991:69).

1.4.2 Complex organisational experiences and dimensions of health and ill health

The second *Why care* question deals with two interlinked concepts, which can be considered both objectively and subjectively. These concepts are:

- the responses of workers to their organisational experiences, and
- dimensions of health and ill health.

Some workers respond to negative organisational experiences by leaving, but according to Australian workforce statistics (ABS 2000:1) about stability of workers, they are more likely to stay at work and respond with poor service, difficult working relationships, poor quality work, lack of innovation, poor decision making, and low productivity. Williams and Cooper (1999:9) refer to this sub optimal performance as the 'hidden health issue' for organisations, whereas, sickness absence and staff turnover are the 'visible' and more obvious signs of poor health and well being. These two factors, that is, the performance of workers, and the stability of the workforce, mean that the workers' responses to organisational experiences may be complex and attenuated, and impact on the organisation's functioning in diverse ways.

Terkel's view of work (1972:xi) captures the chronic nature of the work situation that is in stark contrast to the simplistic assumptions in the second question that suggest that a worker can move to another job if s/he is not happy at work:

> Work by its very nature is about violence to the spirit as well as the body. It is about ulcers as well as accidents, about shouting matches as well as fist fights, about nervous breakdowns as well as kicking the dog around. It is above all (or beneath all), about daily humiliations. To survive the day is triumph for the walking wounded among the great many of us.

Terkel's words bring home the chronicity of workplace stress, rather than the novelty and intensity of acute stress that disrupts goal directed behaviour and is of relatively short duration. Sometimes, no single source of chronic stress may seem to be of consequence but the combined or cumulative effects of these stressors can lead to poor performance over time, reduced well being, health problems and decreased ability to respond effectively to acute stress demands (Driskell & Salas 1996:7).

The complex nature of workers' responses to organisational experiences and the dimensions of health and ill health over the usual forty-year period of the lifespan in employment are very important to employees and employers. The health effects and the productivity effects involved provide strong justification for researching this area.

1.4.3 The health of workers is a measure of how the benefits of society are shared

The third *Why care* question goes to the heart of the consequences of workplace health policies and challenges the moral stance in the market justice/social justice divide. It argues for the utilitarian view, as opposed to the Rawlsian view (Rawls 1978; Weimer & Vining 1999:135–137). The utilitarian view is one approach to public policy in which the expected outcomes are distributed in democratic and egalitarian ways to all participants. The Rawlsian view on the other hand would distribute the greatest benefits to the least advantaged in the community. The utilitarian view of public policy does not guarantee minimal allocation to individuals and the Rawlsian view does not provide incentives for those who create wealth.

Governments must walk the line between developing and implementing policies that provide incentives to business yet at the same time meet the needs of their least advantaged and least powerful constituents, the workers. This thesis will document the opinions of workers and therefore assist governments in their decision making about the distributional rationale.

1.4.4 Sometimes experts' opinions do not acknowledge social reality

The fourth *Why care* question suggests that workplace health policies are a contained and successful program. Unfortunately, the numbers of deaths that occur in Australian workplaces indicate a different reality (Mayhew & Peterson 1999:6). In the manner of Wildavsky (1979:3), who suggests speaking out clearly about social problems, this thesis aims to seek workers' 'truths' and to deliver the findings about those truths in a way that will influence the political economy of policies that bear on employee health.

It is the nature of truth, according to Lupton (1995:160–161), to be 'transitory and political, and the position of subjects to be inevitably fragmentary and contradictory' however, workers' truth is 'one of the varieties of truth' enmeshed in discursive practices of the workplace. Therefore, when this truth is presented it may redress the imbalance that currently exists in the conventional perspectives of employee health.

1.5 The contribution that 'The health that workers want' will make to working Australians

Although it has been argued employee health is an important social issue, limited funding of research and the single disciplinary approach of much research has constrained innovative approaches to the issue. This thesis is a significant departure from previous research, and its contribution to the literature of this field and its practical value to working Australians resides in the following issues:

1. It is interdisciplinary in focus and being situated in the work environment, the context of the research involves the disciplines of Public Health and Health

Services, Business and Management, Psychology and Engineering and Technology.

2. The perspective of employees is a significant and timely contribution. Employees are consumers of workplace health policies and are aware of day-to-day phenomena affecting their health (Palmer & Short 1994:168), and therefore it is appropriate and feasible that they have a role in determining their health (Sofaer & Gruman 2002:154). Consumerism in public policy debates generally, and health policies in particular, is becoming an important force. Seeking the consumer's perspective is in line with current trends to overcome difficulties in health policy development and implementation (Palmer & Short 1994:315–322). Considering the reduction in quality of life that illness at work imposes, no group other than employees has more legitimacy to express their opinions on these issues. The subjective opinions of workers are accessed through their narratives about the topic. The narratives of employees will contribute to 'reframing' (Schon & Rein 1994) these policy controversies. Schon and Rein (1994:26) regard narratives as particularly persuasive in reformulating what may appear 'intractable' policy issues. By analysing workers' narratives about employee health this thesis aims to provide persuasive arguments about ways to improve employee health.
3. It is an investigation that is likely to generate employee insights about potential problems. According to Leape (2000:xxiii), investigations after 'sentinel events' or major accidents may sometimes produce mixed and unclear messages because

employees fear being blamed. The workplace chosen for this study is not the subject of an investigation for any occupational health and safety issue.

4. The rigor of the research process provides benchmarks for other researchers in other workplaces to follow.
5. This cross-sectional study also provides opportunities for subsequent studies of the same population over time. Baseline data is obtained so that future interventions can be evaluated.
6. The generalisation of the findings to other organisations is limited by the cross-sectional nature of the study. However, generalisation to theoretical propositions is supported by the study's aims (Hamel, Dufour & Fortin 1993:34–37). The method of realising those aims also ensures that the findings are meaningful, if not representative of the population under study.
7. This research is consistent with the Designated National Research priorities. *Designated National Research Priorities* of the current Australian government include Promoting and Maintaining Good Health as Research Priority 2 (Australian Research Council 2003:2). This thesis will provide crucial information to workers, and other stakeholders and policy makers about the formulation and implementation of workplace health programs. Consequently, good health of workers will be promoted and maintained. Also, it is research that is, as Winder (2000:190) recommends, relevant to the workplace.
8. This thesis, in examining the health status, causative factors and remedial factors, identifies the affect of psychosocial factors and develops recommendations to overcome them. As society becomes more conscious of the burden of illness, and

the potential for creating a healthy society through better workplace management of people, the impact of psychosocial factors on employees at work assumes greater importance. The Australian National Health Priority Council (2002) in the report, *Future Directions of the National Health Priority Areas Initiative* (2002), targets depression as a primary focus and seeks to achieve gains across the continuum of the disorder. Major depression is already the leading cause of disability globally (WHO 2001) and the burden of mental illness is expected to rise dramatically in the next twenty years. Winefield and his collaborators (2002) indicate that mental health in the tertiary education industry is an important area for study to promote better mental health in that industry. By examining psychosocial factors in depth in one institution in the industry, this study seeks to understand the phenomenon of mental illness in the workplace and develop recommendations to relieve the personal and community burden of it.

1.6 Study design

This thesis is an interpretative study into the social reality of employee health for workers at every level of an organisation at one workplace. The workplace is a natural 'bounded system' for employees. 'Bounded system' is a term coined by Smith in 1978 and quoted in Stake (1994:87) and which refers to a functioning specific in which integrated parts can be studied. Employees are characterised by patterns of behaviour within the workplace and those patterns of behaviour are influenced by exposure to work environments over approximately forty years of their working life. This case study of the workplace is an 'instrumental' case study because the integrated parts of the case, that is,

patterns of behaviour that make up or contribute to employee health, are being investigated and not the workplace itself as occurs in 'intrinsic' case studies (Stake 1994:88). Using Stablien (1996:518–520) classification of cases, the present research is an 'ethno-case' that is, it is ethnographic or interpretative study in part, because it aims to discover the realities experienced by employees in the workplace.

To start exploring this issue it was decided that a pilot study would test the feasibility of the research project and offer helpful preliminary insights. A pilot study consisting of three focus groups followed by five individual interviews was conducted in one department of the same organisation where the final research project was conducted. After the pilot study determined the study's feasibility and influenced the research methods to be used, a case study approach (Yin 1989, 1993) with mixed methods was found to be the most appropriate means to answer the research questions. The aims of the study are fulfilled by using:

i. quantitative methods to:
    - assess the health status of the employee population
    - identify some factors that influence that health status
ii. qualitative methods to:
    - seek insights from employees about factors that influence their health
    - identify what might be feasible to improve employee health.

Mixed methods are appropriate for research questions when they yield greater insight than can be achieved through reliance on single methods alone (Currall & Towler 2003:520). The complementarity perspective of these different methods is of benefit in this thesis as it can integrate divergent concepts in the multi-disciplinarian area under investigation (Gendron 2001:108–116).

The quantitative methods that are used to assess the health status of the employee population in the workplace are the Short Form (SF–36) health related quality of life, self administered survey (Ware et al. 1993, 2000), and a short, ad hoc socio-demographic survey. In-depth interviewing is the qualitative method to access employees' insights about factors influencing employee health and how to improve it.

The applications and the approval numbers of these different aspects of the research project are included in Appendices 1 and 2.

1.7 Outline of the thesis

The thesis is organised into six chapters. Chapter 1 introduces the research problem, provides the research background and states the research questions. Chapter 2 presents a contemporary view of employee health by reviewing the most recent scholarship in the interdisciplinary area of work and health. Chapter 3 provides a description of how this research project into employee health is conducted. The results of quantitative data are provided in Chapter 4 and the results of qualitative data are provided in Chapter 5. Chapter 6 integrates the results of the qualitative and quantitative data and analyses it in relation to the relevant literature. The conclusions derived from the findings lead to recommendations for the study workplace and Australian public service workplaces. The limitations and implications of the study for professional practice, theory, and future research complete the thesis.

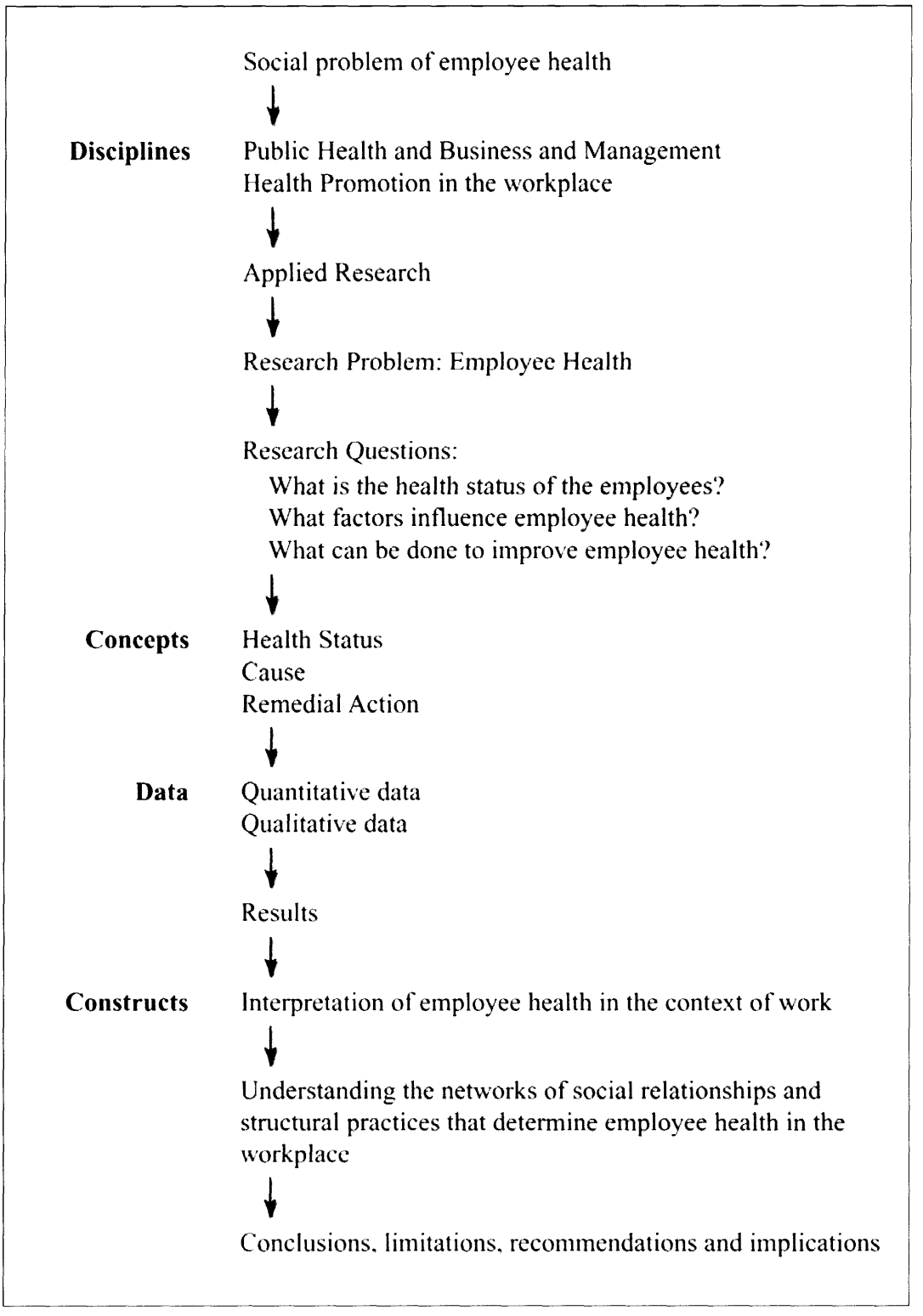

Figure 1-1: Process of research into employee health

CHAPTER 2

Literature Review

2.1 Introduction

This review draws on the most recent scholarship in the interdisciplinary area of health and work. The strategy in this review is initially to examine relevant broad concepts and to become more focused as the chapter progresses. The chapter concludes with a review of the literature dealing with health in the work environment of the university which is the work context for this study on employee health.

A simple schema of complex and interactive concepts that are discussed in this review is provided in Figure 1. The schema shows several sections of this review:

1. An overview of the dimensions of health and the nature of work, and their interdependence is addressed first because they are the foundations for the analysis of employee health. Dimensions of health are discussed in relation to a framework for disease patterns. Understanding these disease patterns is assisted through considering

the factors that influence health; culture, socio-economic status and risk and their impact on the biological substrate.

2. This historiographic scope is narrowed, and examines the determinants of employee health in the social systems of work. Health in the context of work addresses several important areas of the literature:
    - Contemporary work practices are explored, particularly with reference to changes in the labour process impacting on employee health.
    - The issues and tensions that shape employee health provide viewpoints of the political context of employee health.
    - The social system of work and the social determinants of health are examined in detail from the point of view of the psychosocial theories of illness and stress causation.

3. The traditional way of managing employee health has resulted in the significant problems. The reality of the burden of injury and ill health in the workplace is presented in terms of rates of injuries and illness and costs associated with them for the individual, business and community.

4. The university, which provides the context for this study of employee health, is discussed together with the issues and concerns of the tertiary education industry as they affect health.

5. The workplace as a setting of health promotion is the final section of this review and the advantages and challenges of this setting are presented.

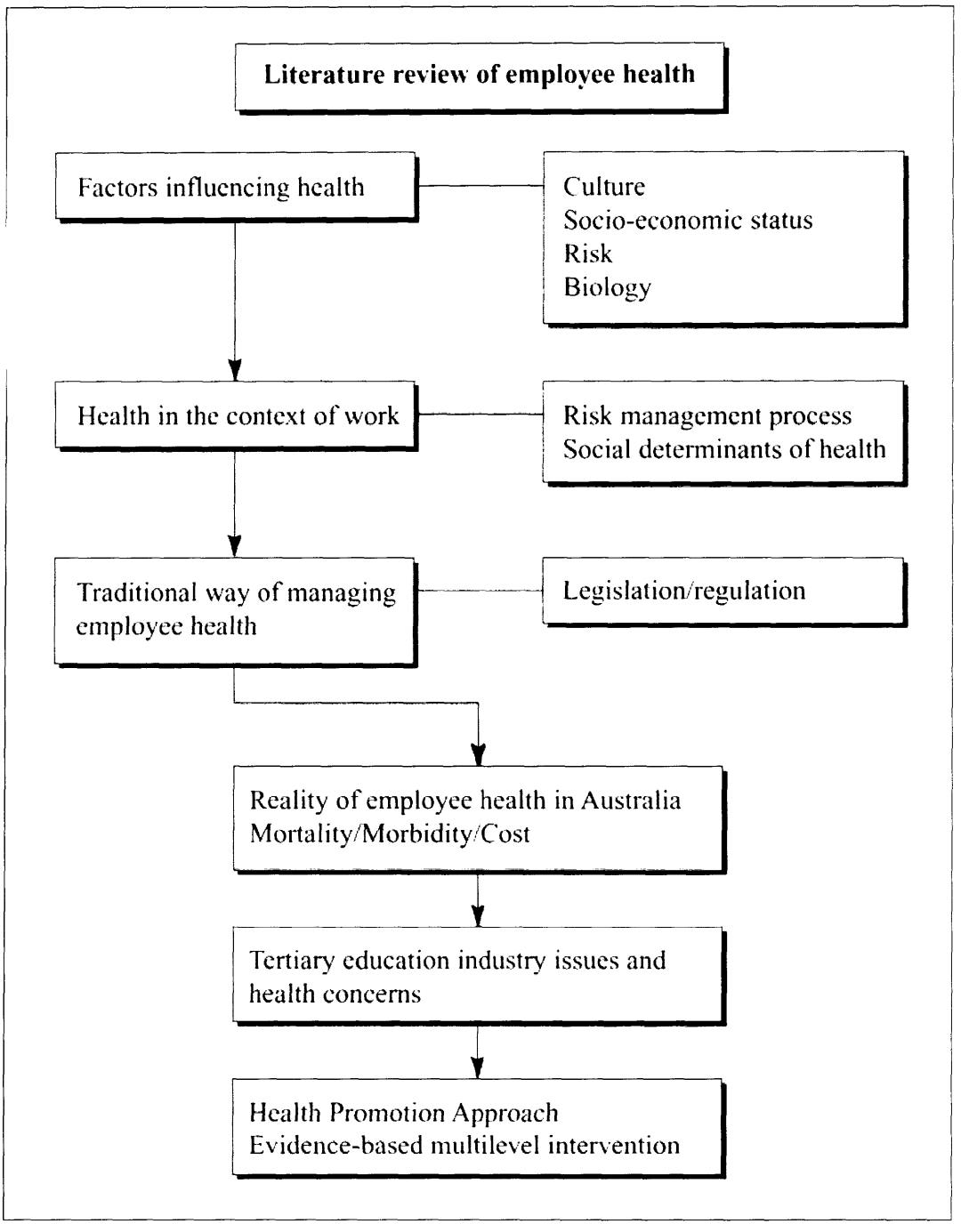

Figure 2-1: Schema of concepts in the literature review of employee health

2.2 Dimensions of health

A multidimensional view of health, incorporating physical, positive, social and quality of life aspects, is associated with varying perspectives and measures and expands the limited biomedical view of health that concentrates on illness. These perspectives influence the analysis and weighting placed on the major determinants of health which are culture, socio-economic factors and risk.

Positive health is described by Bowling (1997:4) as the ability to cope with stressful situations. This capacity relies on maintaining strong social support systems, and integration into the community. Positive health is demonstrated by high morale and life satisfaction, psychological well being, and even levels of physical fitness, as well as physical health. Positive health deals with the wellness part of the illness–wellness continuum (Travis 1977:122 quoted in Dever 1980:16). The continuum in physical and mental health states is an important health concept in the workplace, because employees may be 'healthy enough to work' but may have reduced performance because of pain and various other symptoms of illness. On the other hand, some employees may enjoy states of wellness characterised by physical fitness and personal growth, self actualisation, feeling alive and enlightened and may have enhanced performance.

Social health is conceptualised by Bowling (1997:5) in terms of how the social support systems modify the effect of the environment and life stress events on physical and mental health. Measurement of social health focuses on the individual and is defined in

terms of interpersonal interactions and social participation. Both objective and subjective dimensions which refer to the number of friends an individual has and how well s/he gets on with others are included in the construct of social health.

The history of the social origin of illness generally (Waitzkin 1983), and occupational illness more specifically (Weindling 1985), have been 'haphazard and without sustained research on particular problems or without theoretical concepts' (Weindling 1985:5). Only recently, according to Weindling (1985:5), have social historians become interested in a systematic way with the connections between work and health.

The social dimensions of health are reflected in the term 'quality of life'. Quality of life can be defined as: 'the individual's achievement of a satisfactory social situation within the limits of perceived physical capacity' (Bowling 1997:6). According to some authors, components of quality of life are: (1) functional ability; (2) role functioning; (3) psychological functioning; (4) the degree and quality of social and community interaction; (5) somatic sensation (pain); and (6) life satisfaction (Bowling 1997:6, Patrick & Erickson 1993:34, 73)

Measurements of health are important to policy development of health service provision. These measurements contribute to ensuring that public resources are provided to populations in need, fund appropriate facilities, and provide services that are effective and efficient. Health-related quality of life measures are concerned with the consumer's perspective. They provide 'not mere rating of health status [but] actually a uniquely

personal perception, representing the way the individuals...feel about their health status or non-medical aspects of their lives' (Gill & Feinstein 1994:624).

Occupational illnesses do not impact on the collective consciousness to any great extent because of the individual approach to health taken in the workplace. This very emphasis on the individual neutralises the social connection between work and illness. In spite of this individual approach, it has been estimated in USA (Elkin & Rosch 1990) and the United Kingdom (Schabracq, Winnubst & Cooper 1996:xiii) that at least half of the sick days taken by employees are due to workplace problems, such as stress, workload and conflicts.

The World Health Organization (WHO) proposed its vision of *Health for All by the Year 2000* for the first time in 1977. The WHO vision of health for all is embraced by all people and therefore all would want to pursue policies and practices to achieve it. However, Sax (1984:xi) states that 'policy process is a "multi-person drama" which is continuous, conflict ridden and more political than rational'. Seedhouse (1986, 1997) and Young and Hayes (2002) argue that consumers' perspectives need to be engaged to ensure health for all. Consumers' perspectives would expand the limited medical and scientific viewpoints that influence services and treatments and address inequalities in health and improve quality of life for some groups (Seedhouse 1986; McKenzie & Jurs 1993).

2.2.1 Framework for disease patterns

A framework for explaining social and economic disease patterns was developed by Dahlgren and Whitehead in 1991 and reproduced by Marmot (1996:66). This framework

emphasises the primacy of age, sex and hereditary factors. The clinical approach to disease focuses on these factors and individual behaviour. Research into prevention has generally been concerned with individual risk factors for disease, for example smoking and drinking. Living and working, social and community influences, and general socio-economic, cultural and environmental conditions have attracted less research for interventions. This framework is presented in Figure 2 below.

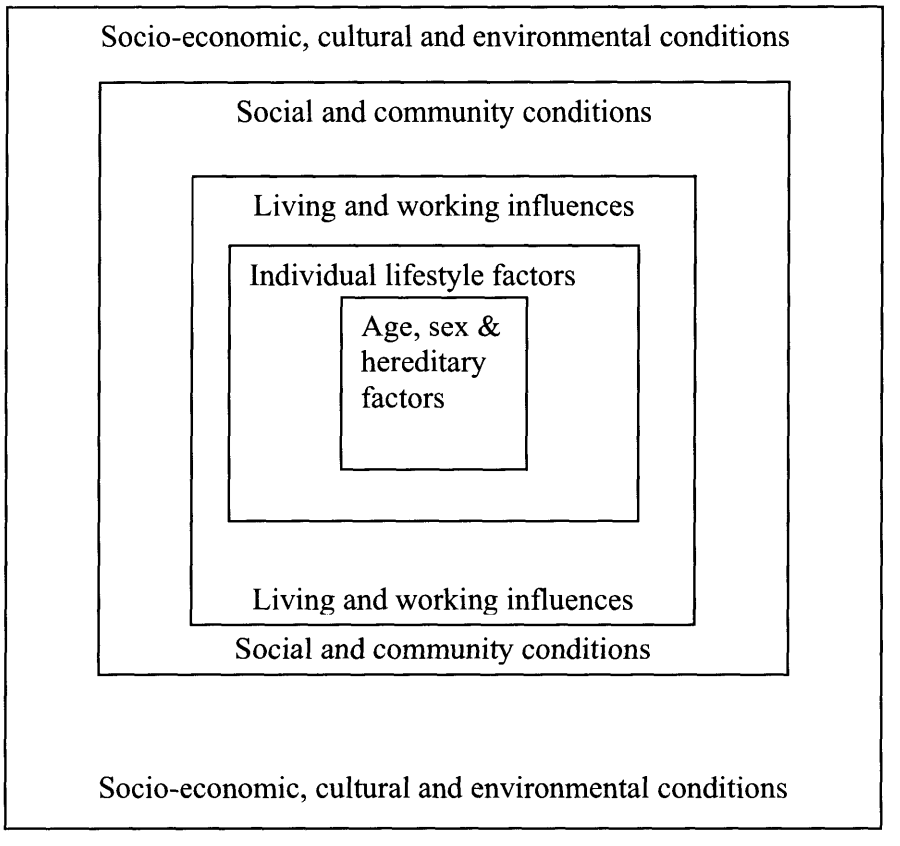

Figure 2-2: Factors influencing health
(Adapted from Marmot 1996:63)

Petersen and Lupton (1996:27–60) criticise the simplicity of this framework because complex societal structural features such as socio-economic conditions, are included in risk factors but few solutions are offered (consequently some factors are advanced over

others), and it is a static model that does not reflect the historical changes in disease causation. There are problems in developing simple inert frameworks for complex in vivo phenomena. Petersen and Lupton argue that Kriegler's 'web of causation' (1994:887–903) at least conveys the interaction of direct and indirect risk and protective factors producing diverse causal pathways. Rather than the Dahlgren and Whitehead framework which provides an explanation of disease patterns, it is a graphic means of discussing disease patterns in an orderly manner.

Marmot (1996:63) uses Dahlgren and Whitehead's framework to describe his significant findings about the social patterns of disease. Marmot and a group of researchers known as the Whitehall team have advanced understanding in this area, particularly in relation to the patterning of disease in the social hierarchy at work. The Whitehall research involves a longitudinal study of 10,308 male and female British civil servants and was started in 1985. Marmot and Theorell (1988:659–673) report there is a steep inverse association between grade of employment and mortality from coronary heart disease and a range of other causes. In Whitehall II, Stansfield, Head and Marmot (2000) use the General Health Questionnaire and the SF-36, as well as other measures, and sickness absence of both short spells (1–7 days) and long spells (8 days or more). Stansfield, Head and Marmot's findings show that low decision latitude, high job demands, low social support, and the combination of high effort and low rewards are associated with poor mental health and poor health functioning. Their results suggest that intervention at the level of work design, organisation and management might reduce morbidity in working populations.

Marmot's work in the Whitehall I and Whitehall II studies show a social gradient in mortality and morbidity. Morbidity and mortality rates are higher for those at the bottom of the social hierarchy than at the top. Van Rossum et al. (2000:178) also report from the Whitehall II study to show that the mortality differentials persist at older ages for almost all causes of death in this 'white collar' cohort. The mortality rates are higher in the lowest grades of employment. More specifically, the workers at each point in the hierarchy have worse health than those above them and better health than those of lower rank. In effect, this indicates that social, cultural, working and economic factors, represented by the outer parts of Figure 2, have a strong influence on biology which is represented by the inner parts. This work emphasises the social and biological pathways that underlie the social patterning of disease (Marmot 1996, 1998:403; Marmot Shipley & Rose 1984).

In the United Kingdom, the Acheson Report (1998:33) into *Inequalities in Health* is adamant that policy emphasis should be made 'upstream' from the individual (i.e. targeting the factors in the outer boxes of the Dahlgren and Whitehead framework) to the social and economic structures if any worthwhile changes in health inequalities are to be made, because comparatively little is accomplished by addressing 'downstream' influences of individual lifestyle, age, sex, and hereditary factors (i.e. the inner boxes of the framework).

Results from the Australian Health Promotion Survey of 1994 reported by Harris Sainsbury and Nutbeam (1999) support the differentials in health status and exposure to

risk that are found in the Whitehall studies. Lower education levels, unemployment rather than employment status, areas of residence of socio-economic disadvantage, living alone, and rural compared to urban residence are associated with poorer health status. On the other hand belonging to a particular immigrant group was not associated with a difference of health status (Harris Sainsbury & Nutbeam 1999:19–31). These researchers find that structural factors, that is, poor quality of social and economic environments account for most of the health status differentials observed. In Australia it is a problem of relative disadvantage rather than absolute lack of resources for these groups that experience health inequities. This type of research is the background for Petersen and Lupton's (1996) opinions about the diverse causal pathways that influence disease patterns in society rather than the simplistic interpretation of Dahlgren and Whitehead's framework that implies genetics, age and sex are the sole or primary determinants of health status.

This contextual view of health is referred to as the ecological view of health. This term, 'ecological' is borrowed from its traditional use in biological systems where it describes a balance and interplay of factors (Dever 1980:10). It has been used in relation to health to describe a person's health as being influenced by a broad range of factors and situations and from interactive and overlapping levels.

The ecological view of health can be considered as operating at four levels: micro level—face to face physical and social situations that directly affect the person; meso level—connections and relationships among the persons' microsystems; exosystem—settings that indirectly affect the person; and macro systems—socio-cultural values, beliefs and

policies that provide a framework for people's lives and indirectly affect the person through those other levels (Murray 2000:224). Much of society's formal and informal structure and government is based on the settings in which its citizens live and work. These settings, within which and through which health occurs, provide both an efficient way to analyse, understand and influence the determinants of health and provide an extensive array of leverage points and incentives for reaching and influencing individuals and communities (Goodstadt 2001:209).

2.2.2 Culture

The culture of a group is very influential for health. Culture is defined as:

> a complex integrated system that includes knowledge, beliefs, skills, art, morals, law, customs, and other acquired habits and capabilities of the human being. (Murray, Zentner & Samiezade-Yard 2001:4).

A culture is both ideal, in that it aspires to certain values and health beliefs, and it is also manifest. The manifest culture is the expression of the way people think and behave. Within the dominant culture there are subcultures—groups of people within a larger culture, of the same age, socioeconomic level, occupation, or with the same goals, who have an identity of their own but are related to the total culture in certain ways. For example, regional culture refers to the local or regional manifestations of a larger culture (Murray & Zentner, 2001:5). In the same way, workgroups and organisations form subcultures of the larger societal culture. Workgroups share industry and professional allegiances, and organisations develop cultures related to their founder, origins and evolutionary experiences. The health status of a workgroup derives much from the

organisational culture and wider community culture to which the workers and organisation belong.

Cultures, however, are not static entities. They are subject to changes. For example, in Western modern society some of the cultural problem areas and trends that Murray, Zentner and Samiezade-Yard (2001:9) note include:

- need for more professional knowledge
- greater expectation of the public for services and quality of services
- more goods considered to be public goods
- lack of measurement to show what is actually needed, and thus where the money and resources should be directed
- short-term rather than long-term considerations in the business economy, health services and social service
- changing demography and more urban concentration
- increased life expectancy
- changing values with little understanding of the historical roots of the culture
- power struggles between groups.

From this list two unifying themes in contemporary cultural changes are individualism and economic rationalism and it is necessary to understand their impact on health and work (Murray, Zentner and Samiezade-Yard 2001:9). These themes are significant in the tertiary education industry because of their effect on the nature of educational services offered and the means of delivery of those services. Technology also shapes the

educational workplace and other service industries through its impact services and service delivery.

2.2.2.1 Individualism

According to Naisbitt and Aburdene (1990:299) the doctrine of individual responsibility was a major cultural trend in the last decades of the 20th century. Individualism fosters a climate of 'independence', with freely choosing individuals who do not need to care about others individually or collectively. Notwithstanding the self reliance that individualism ostensibly creates, Naisbitt and Aburdene acknowledge that society as a whole gains by the action of individuals when they achieve in any area of human endeavour.

Cultures also vary in the degree to which they balance the interplay of collectivism and individualism. Strongly collective cultures are tightly bound and cohesive and expect unswerving loyalty, whereas individual cultures are those in which connections between people are loose and individuals are expected to look after themselves. Cultures that are collectively bound usually have power distance dimensions within them. Power distance is defined as 'the extent to which less powerful members of organisations expect and accept that power is distributed unequally' (Erez & Earley 1993:104). Culture influences both systems and individual behaviour and is influenced by them (Anthony 1994:2). The tension between individualism and collectivism, which is a cultural characteristic of the wider society and organisations and workplaces, is translated in the workplace through the concepts of personal social capital, social capital and community capacity. The

development of organisations and workplaces and the health of individuals at work are interactional and the level of trust between employees, who are usually not related by family ties, impacts on their health.

2.2.2.1.1 Personal social capital, social capital and community capacity

At the personal level, social capital refers to strength of personal support networks and ability to access such support, as well as trust, mutual responsibility and effective collaboration (Putnam 2000:19–26). Social capital also operates at the level of society, in a set of complex interactions between community level characteristics, such as trust, participation and cooperation evident in values, norms and connections that allow people to work together for the common good. Trust operates at the micro level of the interaction between people and is regarded as the 'most valuable factor' in social capital (Berry & Rickwood 2000:36). Trust is most valuable to the social capital of an organisation because it allows people to support each other. Through trust employees are free to be open and to achieve their potential in life (Bruhn 2001:38).

Putnam (2000:19) clarified the differences between physical capital, human capital and social capital thus: physical capital refers to physical objects; human capital refers to properties of individuals; and social capital refers to connections among individuals, social networks and norms of reciprocity and trustworthiness that arise from them. This is not a romantic view of social capital (Baum 1999:195) or a costless way of making society and the economy work better (Wilkinson 2000:411), or a preference for psychosocial conditions over material conditions (Lynch et al. 2000:404). Navarro (2002:427) does not accept the use of the term 'social capital' because, he states, Putnam

does not consider power and politics as factors that affect an individual's ability to compete for resources but considers only participation and togetherness. A more balanced view however, sees social capital as strongly influenced by political, legal and corporate action rather than simply being individually determined (Lynch et al. 2002:407). Social capital can be fostered or not through the way social networks and supports are developed and encouraged by governments and organisations. Collective action to increase social capital can be a public strategy to overcome some socio-economic inequalities and improve health.

Social capital operates at two levels—bonds and bridges. Bonds refer to the strength of internal relationships in the group and bridges refer to the capacity of the group to connect to other societies (Kueter & Lezin 2002: 239), whereas the concept 'community capacity' relates to the ability of the community to change constructively in relation to social and public health problems (Norton et al. 2002:194–227).

The dimension of individualism—collectivism existing in a particular workplace—is demonstrated by the social capital and community capacity that work teams and the organisation have at their disposal to cope with change. The social relationships involved determine health status and productivity. Therefore, the dimension of individualism—collectivism and the corresponding social capital and community capacity—are the group level constructs that operate in the work subculture and influence employee health.

2.2.2.2 Economic rationalism

A second unifying theme in the cultural changes effecting post-industrial society is economic rationalism. Economic rationalism is a form of ideological reasoning which took hold in the 1980s in Australia and is based on the notion that the free market is a much better arbiter of economic and other matters than are governments (Pusey 1991). Economic rationalism sees itself as a science largely devoid of social goals, and the language and logic of economics begins to dominate social policy. A corollary of such reasoning is a reduction in spending by the state on such things as education, health and social welfare, and a shift in providing these services to the private sector (Holmes, Hughes & Julian 2003:231).

Economic rationalism and capitalism sit more easily with profit making businesses. However, the provision of public goods by public institutions such as hospitals, universities and schools, is achieved nowadays by producing these public goods in a cost-conscious competitive environment with the same awareness of the 'tyranny of the bottom line' that profit driven organisations experience (Estes 1996).

The interplay between culture and economic theory has had an illustrious recorded history in the work of classical sociologists, as for example, in Marx's *The Economic and Philosophic Manuscripts of 1844* (Marx 1964; Tucker 1978) and continues in the work of Braverman (1974). In his book, *Economic Rationalism in Canberra*, Pusey (1991:10) points out that the priorities of economic rationalism are the economy, political order and

then social order. Opposition to economic rationalism is seen as cultural resistance to a 'necessary condition' or as 'rancour against (post) modernity' (1991:21).

The challenge for the 21st century is the impact of these cultural trends and their underlying themes of individualism and economic rationalism on social capital. Economic life is pervaded by culture and depends on the moral bonds of trust (Bruhn 2001:5). In the business world trust is the unspoken, unwritten bond that is a prerequisite for the legal bond because it facilitates transactions.

2.2.2.3 Technology

Technology is part of modern life and shapes many cultural dimensions and operates as part of the socio-economic, cultural and environmental conditions (i.e. included within the outer layer of Dahlgren and Whitehead's framework of patterns of disease). Cairncross (2001) predicts a business and lifestyle revolution based on technological supremacy. In his book, *The Death of Distance* (2001), Cairncross discusses cultures and communication networks that will hold businesses together through technology rather than rigid management structures. Additionally, he believes the line between home and work will blur, with more work being performed at home. The social consequences of these changes and their impact on the health of employees have not been fully researched, according to Konradt, Schmook and Malecke (2000:90).

The view of culture as resistant and therefore 'bad' occurs frequently in writings on policy implementation at the national and organisational level of strategy development

and implementation (Mintzberg & Quinn 1998). Nevertheless, culture is essentially the binding force that regiments those within the culture through its cohesive action. It defends the insiders by placing boundaries around them that distinguishes them from outsiders. Thus, rather than being resistant, culture is, according to Erez and Earley (1993:104), the moderator of change.

2.2.3 Socio-economic status

Several authors in Australia mention that social class not only determines values, attitudes and lifestyle, but also determines health (Bates & Linder-Pelz 1987:20–25; Harris, Sainsbury & Nutbeam 1999:16–35; Lupton & Najman 1995; Palmer & Short 1994:243; Russell & Schofield 1986:51–65; Short 1999: 90–95; Turrell 1995:113–135). For example, people with higher socio-economic levels, (i.e. those with good income, higher education, and full employment) experience better health and have medical insurance, use private medical facilities and often live longer. Graycar and Jamrozik, in their review of Australia's social policy, find that as far as employment benefits are concerned, men, higher income earners and executives, administrators, professionals and sales personnel have considerable advantages over women, low income earners and lower grade occupations (1993:201). Using education as a marker for socio-economic status, Steenland, Henley and Thun (2002:11) report that life expectancy is shorter for the least versus the most educated in their 37-year follow up study of two million people in the American Cancer Society Cohort. Harris, Sainsbury and Nutbeam (1999:43) state that:

> It is generally accepted that the most powerful influence on differences in health across population groups is relative poverty and associated structural forces, which serve to increase and maintain the differences. One's position in society's economic hierarchy determines choices of health promoting activity directly through access to

> resources such as goods and services, and indirectly through social expectations and opportunities.

Those people who belong to lower socio-economic groups lack power in social and political relationships, and may be vulnerable to workplace bullying. Research on workplace bullying identify employees whose health is affected by that experience. The victims of bullying are often subordinated or discriminated against, marginalised or disenfranchised, and suffer mental health problems as a result of the bullying (Hoel, Rayner & Cooper 1999:195–231). Victims of bullying experience more illness and a lower quality of life overall, and there are more premature deaths among the group members than comparable groups. Individuals in the middle and upper socio-economic levels who lack power in workplace structures may also be vulnerable to workplace bullying.

2.2.4 Risk

Risk is a social construct that assumes great importance in health and work literature as a means of quantifying a potential health problem. Risk is defined as:

> the exposure to possible loss, injury or danger; the probability of occurrence of a particular event (Murray, Zentner & Samiezade-Yard 2001:53)

> a probability of an adverse outcome, or a factor that raises this probability (World Health Organization 2002:1).

Risk factors are characteristics associated with an increased probability of a particular event, usually an injury or illness occurring (Murray, Zentner & Samiezade-Yard

2001:53). Risk assessment is part of the process of weighing up health problems and trying to be effective and efficient with interventions to benefit the individual and community. The regulation of risk involves attempts to control risk by setting and enforcing behavioural and product standards.

Within the workplace in Australia, the assessment and control of health risks is the responsibility of management through Occupational Health and Safety legislation, but this self regulation is far from effective. In an effort to improve this, the Australian government has appointed Richard Johnstone and Neil Gunningham to the National Research Centre for OHS Regulation to initiate, encourage and support research into OHS regulation (Johnstone 2002:4).

According to the Australian Bureau of Statistics report on the *Social Trends for Health: Risk Factors among Adults* (2003), the risk factor responsible for the greatest disease burden in Australia is tobacco smoking. Another common risk is excessive alcohol consumption. Excess alcohol consumption is linked to some cancers, liver disease, pancreatitis, diabetes and epilepsy. Smoking and drinking together account for about 17% of all disease (Australian Institute Health Welfare 2000:146–148). The risk factors of smoking and excessive alcohol intake have been studied extensively.

Beck's *Risk Society* (1992) offers fair warning about the deceptive simplicity of the concept of risk in modern society. According to Beck (1992:3) risk is an 'intellectual and political web' cast by modern industrial society, in terms of problems (or risks) for the

individual. These risks for the individual are conveyed in scientific language that ignores social rationality. Risks seem to concentrate in society at the lower end of the socio-economic spectrum. For example, lower socio-economic groups or those who are less powerful consume more tobacco. Also in the workplace, the least well paid workers not only operate in more hazardous environments, their amenities (e.g. tea rooms, wash rooms, etc.) are usually more limited than workers who attract higher wages. Their opportunities to have a break from work and refresh themselves, as well as their opportunities to move to better work environments are also constrained. Beck (1992:35) makes the point that 'risks seem to strengthen, not abolish the class system', on the other hand [the] 'wealthy [i.e. those with high incomes, power and education] could purchase safety and freedom from risk'.

Lupton (1995:77–105), Nettleson (1996:37, 53) and Petersen and Lupton (1996:18–20) comment on the pervasiveness of risk in literature of health and lifestyles and the limited ability that people have to control the social circumstances of their lives. These authors agree with Beck that more advantaged people have more control over socio-economic, environmental, living and working conditions. Therefore concentrating on lifestyle factors only, rather than cultural and socio-economic factors, may contribute to increasing health inequalities because advantaged people will gain doubly—from their own power base to control external factors influencing their health, and societies renewed push to enhance better lifestyle choices.

2.3 Work

Work is defined by Kahn (1981:1) as 'a human activity that produces something of acknowledged value'. Three elements in this definition are: the fact and nature of the activity; the reality and experience of producing/transforming something; and the recognition and acknowledgement by oneself and others that the activity and its outcome have value. All three elements in Kahn's definition are important for physical and mental health and social well being. Work in Kahn's definition refers to all kinds of practical activities, but this thesis is concerned specifically with work performed in employment in a university. However, before dealing with that specific workplace, contemporary thoughts about work in general are discussed.

These three elements of work are involved in the meaning that people attach to work. Pauchant (1995:42–43) relates the significance of work to the value conferred on it. This value is determined by how work fits in with the worker's plans in life. Because of the complexity involved in assigning value to work, Pauchant introduces the concept of *coherence* (1995:43). Coherence refers to the way workers integrate the experience of work in their minds in spite of contradictions that they might feel. Workers do this by balancing their inner life with their social experiences.

2.3.1 The labour process

The labour process is the basis of employment agreement whereby a worker gains a living. The major struggles in the labour process that were analysed by the classical sociological thinkers (Habermas 1971; Lukacs 1971; Marx 1964) are now played out through a system of industrial relations that determine the settlements for work-based

issues, wage levels, leave and other entitlements within a legal framework. The character of the struggles that take place at work has been described by Tilly and Tilly (1998:264) in their book, *Work under Capitalism* as, 'hard bargaining within stringent, institutional limits established by the previous histories of shared understandings and social relations'. By this, the authors suggest that the contemporary situation between employers and employees is historically grounded in conflict. The solutions to these conflicts usually take the form of compromises, and those compromises are based on the different value systems of the parties involved.

The working environment of post-industrial society is characterised by many of the cultural trends mentioned earlier, particularly the 'short-termism' of business, changing values, and power struggles between groups. These trends are seen in: a rise in office and service occupations and a decline in manufacturing (Wilkinson 2001:13); downsizing which is the reduction of personnel in organisations in developed countries (Kivimaki et al. 2003:57) and almost all United States industries (Davis, Savage & Stewart 2003:18); a short-term contract culture, long working hours, job insecurity and a declining sense of loyalty by employees to their employers and vice versa (Cooper 1999:569); expansion of the use and therefore the impact of information technology (Howard 1985:2); and new marketing strategies (Gee, Hull & Lankshear 1996:vii). There are changes in the way work is conducted as there is more emphasis on knowledge management through information exchange. There is a move from 'mass labour' to highly skilled 'elite labour' (Haworth 1997:3), accompanying an increase of automation in production and in the delivery of services.

The expansion of precarious employment is part of that individualistic approach to employment arrangements. Barlow (1995:182) describes this process as:

> the industrial intervention that operates at the level of the workplace, award restructuring acts to individualise the relationship between employer and employee, and has the effect of making the individual worker, rather than the total organisational relationship, responsible for productivity gains.

All these changes in the nature of the labour process mean that social processes at work, rather than the physical tasks of work, play a greater role in determining employee health.

Howard's description of work in the future in *Brave New Workplace* (1985) utilises new technology and contains much inequality and conflict that can only be balanced, according to the author, by a renaissance of unionism (1985:200). However, rather than a renaissance of unionism, there is in Australia, according to Peetz (1998:3), a declining union density (i.e. the proportion of employees belonging to unions). This decline is related to structural changes in the labour market, the institutional break in the determinants of union membership, and the failure of many unions to prevent employer strategies from leading to a decline in union outreach and membership.

For Gee, Hull & Lankshear (1996:vii), the 'new work order' will require more attention to the selling environment at every level of production, from design to distribution. This market orientation revolves around the imperative that the organisation must be flexible enough to adapt to uncertain and changing market conditions. Flexibility in this context means the ability of the organisation to take on or terminate employees based on market

conditions. A flexible labour market is one in which the employee is expected to possess multiple generic skills adaptable to changing employer demands (Bartley & Ferrie 2001:776). This new work order creates new social identities of workers as self-reliant skill developers who 'do not expect a business to sustain them in the long run' (Gee, Hull & Lankshear 1996:30). The contradiction for workers is that although democracy and empowerment are values that are aspired to in modern organisations, these same organisations need a flexible workforce and this flexibility limits the empowerment of workers (Gee, Hull & Lankshear 1996:31–35).

According to Pauchant (1995), organisations and work have two functions, utilitarian and economic. Because of these two functions most workers have an inherent ambivalence towards work. It offers the promise of human community, and defines what they do, but it is also an obligation, a constraint and a necessity.

2.3.2 The health risk concept in working conditions

Risk when applied in the context of work is often taken for granted, because it is seen as part of the job. In order to overcome this tacit acceptance of risk and to reduce the harm to workers, the health risk concept at work has been enshrined in legislation in some states in Australia. In that legislation, not only is the manager of the workplace responsible for risk management, the manager is also required to consult with employees about the risk management process (Occupational Health and Safety Act (NSW) 2001).

Therefore, risk management is developed into a three-stage process of identifying hazards, recognising the risk and controlling the risk (WorkCover 2002). Standards

Australia produces guidelines for Occupational Health and Safety Management Systems (AS/NZS 4804 1997; AS/NZS 4801, 2000).

The occupational hazards are categorised as:

- biological or infectious: for example, cytomeglovirus in day care facilities, Q-fever in animal workers
- chemical: for example, mercury, lead poisoning
- mechanical: for example, lifting, giving rise to musculo-skeletal injuries
- physical: for example, shift work, noise, computers, violence
- psychological: for example, interpersonal conflicts, stress from work overload or organisational politics.

Assessment of the risk involves making a judgment about the likelihood and the consequences of harm. Control involves a tiered approach, from eliminating the risk, isolating it, through to substituting some other activity, developing engineering controls and administrative controls, to wearing protective clothing to reduce the chances of harm. Within this simple risk assessment process there is less attention given to the cumulative risk approach that deals with the reality of multiple exposures to diverse risks over lengthy periods of time.

WorkCover[1] classifies different industries with a numerical rating that is proportional to their respective danger. The relative danger of some work activities is indicated by the percentage in the list complied by WorkCover. For example:

- State Government administration has a rating of 0.77% (2002:421)
- higher education has a rating of 1.45% (2002:430)
- coal mining industries have a rating of 8.80% (2002:57)
- timber and plantation industry has a rating of 14.98% (2002:51).

According to the list, State Government administration is the least dangerous work, and timber and plantation work is the most dangerous. The relative danger of these industries (i.e. the probabilistic risk factor which is applied to aggregates of individuals, not to a specific individual), will not change by the safe or unsafe activity of one individual worker. Preventive measures must be embraced by many people in those industries to have any impact. This is referred to as the 'prevention paradox' by Rockhill, Kawachi and Colditz (2000:178), because a preventive measure that brings large benefits to a group offers little to each individual because only a small minority of the group of workers is affected.

This risk management process makes the operationalisation of health risks in the work environment simple, but the simplicity of the process must be executed in the hard bargaining terrain of the workplace (Tilly & Tilly 1998:264) and the struggle between

[1] WorkCover is a statutory body in New South Wales that has responsibility for administering state laws relating to Occupational Health and Safety and Workers' Compensation. Every state in Australia has a similar government body to carry out these functions.

divergent stakeholders can be 'muted, routinised or openly contentious'. Notifying workers at risk, and their right to know about that risk, deciding on the level of risk and what to do about it, and who is accountable for the process, are intensely political issues that legislation has not fully addressed.

Bayer (1986:1356) states, 'Neither the provision of information nor the triggers of notification [i.e. notifying workers at risk] are clinical questions. They are political at their roots'. Sass (1978) refers to this as a problem of 'the social in the technical'. The social question in the technical issues of risk assessment is: 'Who decides that the risk at that level is acceptable?' The answer is that management–worker power relations ensure that management makes such decisions. Petersen and Lupton (1996:148) refer to this type of participation as 'tokenism' because the employers are obliged to consult with employees about risk management processes, but employees have no real power to affect decisions and their participation is in line with 'predefined and delimited government objectives'. This treatment of employees is consistent with the model of consumerism that is congruent with market ideologies and reflected in other social policy areas, (i.e. health policy), where the process reinforces managerialism and the consumer cannot significantly influence decision making (Nettleton 1995:249–250).

There are value judgments and differing perspectives in risk identification, assessment and control. These differences are identified by Holmes, Triggs and Gifford (1997:131–143) in their Australian study of risk identification and control in the painting industry. This study compares three sets of data about risk: workers compensation statistics data;

descriptor terms of experts; and lay judgements of people working in the painting industry. A panel of five judges found significant differences between the risk assessments from these three groups of data. The risk strategies emanating from the two technical data sets assume overall control of the workplace is a given, whereas the model of risk control of the last group places the individual as the focus of change because that reflects their understanding as the only measure within their power. This study is of great importance because risk prevention and health promotion policies in the workplace are usually based on technical rational assessments of risk. Consequently, lay people regard these solutions as often irrelevant, ineffective and inappropriate. Therefore, as risk management increases in prominence in the workplace and it contributes to the development of policies, it is necessary to consider the social power of workers who implement risk controls. Without the judgements of workers included in these policies there is a gap between the stated intent of risk management and the actual reality of it on the shop floor.

Behavioural risk management is an eclectic management approach to business losses that employees produce through poor performance (Yandrick 1996). Behaviour risk management interventions include programs and services for workers; policies and benefits; and supervisor, workgroup, employee, executive, and board member training (1996:236). Behaviour risk management is a paradigm shift from the traditional approach to business risk, which considers only the structural aspects of the business.

2.4 Issues and tensions that shape employee health

The emergence of workers' compensation reforms at the turn of the 20th century in the United Kingdom, USA and Australia was due to the governments' roles in supervising labour relations (Cass 1983:45; Fishback & Kantor 1998:305; Hanes 1968:104). The economic role of government has continued and is directed to controlling the liabilities of businesses. Instead of undetermined negligence liability for workplace injuries, workers' compensation reforms mean that businesses have the cost of compensation based on a fixed schedule, and therefore it is possible to calculate and plan for it as a cost of business operations.

A tripartite body of government, business and unions has developed in Australia, as in most industrial countries, to manage employee health. The title, roles and responsibilities of the tripartite body varies from state to state, but they function to advise the governments of appropriate changes in policy and procedures when these are considered necessary.

The International Labour Organization firmly supports the concept of tripartism as the mechanism for worker involvement (ILO Constitution 1944). The Roben's Committee (1972:para 66) whose findings are the source for Occupational Health and Safety reforms in the United Kingdom and Australia, states that 'there was no legitimate scope for bargaining on safety and health issues'. In spite of these ideals, bargaining between the different groups in the tripartite body occurs as they trade off their short and long-term

goals. This bargaining process is described by Bohle and Quinlan as 'inevitable' (2000:441–456).

The tensions that influence the movement in the bargaining process are:

- profit versus safety
- conflict versus consensus
- market justice versus social justice
- self-regulation versus co-regulation.

These tensions are articulated in this passage from the Industry Commission (1994:xxviii):

> *Employers* want the lowest possible workers' compensation premiums and worry about their competitiveness as the costs of insuring against work related injury and illness escalates. *Employees* want to work in safe workplaces. However, if they are injured at work or suffer an occupational disease they want to be appropriately compensated, and if necessary rehabilitated or retrained. *Governments* want comprehensive arrangements in place that embody strong safety incentives, are fair to those who suffer work related injury and illness, but do not at the same time impose an unreasonable burden on either firms or taxpayers. And *underwriters/insurers* want schemes, which allow them to earn an adequate return on their investment.

The contemporary view of multi-factorial causation that operates outside the workplace is in contrast to the business and legal focus on mono-causal aetiology because mono-causal aetiology favours profit over safety (Weindling 1985:41). Dembe's insightful study (1996) of medical determinations about work relatedness of occupational diseases shows that those determinations are shaped by deep-seated social, political, economic and cultural forces. The tension between conflict and consensus is apparent in the predilection for human and organisational arrangements in socio-technical systems, and these

arrangements are influenced by institutional politics and power as seen in the Longford disaster and other ill-managed risk problems (Pidgeon 1998:205).

That the market justice–social justice arrangements can be better adjusted in Australia is seen in the rate of fatal injuries at work compared with that of other countries. There were seventy-seven workplace deaths per million workers in Australia compared to thirty-seven per million workers in the United States, twenty-four per million in the United Kingdom, twenty-two per million in Sweden and twenty per million in Japan (Dabscheck 1992:70, 1995:97). From the International Labour Organisation database, *Laborsta*, seventy-one (2001) and fifty (2002) Australia workers died compared to eighty-three (2001) in USA per 100,000 workers employed. The method of recording deaths in United Kingdom, Sweden and Japan did not allow comparison to be drawn.

The benefits from work could be spread more equitably and burdens relieved. The shift towards self-regulation supports managerial control and is based on the ideals of the Robens' report. The structural relationships between owners of businesses and unions have changed and the power of unions has been undermined by changes in the labour process which has weakened existing regulatory safety regimes (Quinlan & Mayhew 1999:493). Fells (1998:50) states that with enterprise bargaining the 'structure and processes of workplace negotiations are asymmetrical and generally favour management'.

2.5 The determinants of employee health in the social system of work

With the decline in manufacturing and the rise in service jobs, work hazards are increasingly social rather than technical. This section deals with social systems of work and considers work subcultures, social determinants of health at work and stress, because of their relevance in service industries such as the tertiary education industry.

2.5.1 Work subculture

Work subcultures represent and determine what actually transpires in the workplace, with its distinctive behavioural systems which are made up of the shared experiences, working conditions, problems or interdependence of tasks (Schabracq 2003:13). Bonds among workers foster the development of shared perceptions of work and its meanings and a common understanding of appropriate behaviour. The subculture norms define the appropriate levels of input, output, and qualities found in the workgroup and are viewed as collective responses to the demands of the work situation.

Socialisation within a culture ensures conformity to the group's expectations and belief systems (Rothman 1987:2–21). The language and behaviour patterns of working people are related to the interactions within that work subculture between employer and employee and among peer groups. Shared conceptualisations, behaviour and language influence work subculture. 'Social representations' is a term coined by Moscovici (1984) to mean the system of knowing, talking and deriving meaning that all members of a workgroup share about their view work. These shared perspectives contain the meaning of work for workers in that subculture. As Yankelovick (1974:47) expresses it, when the

worker 'looks up from the grindstone' s/he seeks the meaning of that work in the work subculture to which s/he belongs.

2.5.2 Social determinants of health at work

This social context of work in the West operates in an environment of corporate managerialism. Corporate managerialism is a term that has come to the fore as part of the ideology of economic rationalism. Corporate managerialism in public sector bureaucracies refers to the process of pursuing greater productivity for given resources through a tighter, more defined management structure that has precisely articulated policies and task orientation of the operational workforce (Currie & Woock 1995:145). Management has grown out of the development of the manager level in the hierarchy. This level not only organises the work of subordinates, but must also justify itself, usually in terms of discourses of increased efficiencies and effectiveness. Management is the 'agent of capital' (Mulholland 1998:184) and part of the causal chain between capital and work forms (Salaman 1986:18–25).

In the literature on work and health three theories are so frequently mentioned that they are referred to here at the outset:

- Demand-Control-Support (Karasek 1979)
- Person–Environment Fit (Caplan 1983)
- Effort-Reward (Siegrist 1998:190–204).

These three theories help to explain the action of the psychosocial factors that affect the individual worker's health in the work environment. Briefly, the Demand-Control-Support theory relates the demands placed on workers with the degree of control that they

have over those demands and the support that they perceive is offered to them in doing the work. The Person-Environment Fit describes the satisfaction that is derived from the worker being appropriately skilled and adjusted to the work situation. The Effort-Reward theory links the inducements or rewards that the organisation offers to the effort that the worker has to put into work.

Wilkinson (2001) in the preface to her book, *Fundamentals of Health at Work* refers to the 'neglected social context of workplaces', and within the text provides a list of the social determinants of health in the workplace and the theories behind some of those concepts (2001:9–10). The sources of these social determinants vary in the work environment. Some relate to the job itself, to the worker's role in the organisation, to the worker's aspirations and career development, to relationships at work, and/or to the organisational structure or culture of the workplace (Sutherland & Cooper 1988:3–31). A modified form of Wilkinson's list includes the following concepts:

- Demand-Control: The Demand-Control-Support model was first developed by Karasek. (Karasek 1979; Karasek & Theorell 1990; Theorell 1998). Demand incorporates the concept of quantitative work overload or underload, that is, too many or too few tasks, whereas qualitative work overload or underload refers to tasks that the worker does not feel capable of doing. In essence, constraints on decision making or decision latitude, rather than decision making itself are a major problem. Decision latitude or control, or the degree of autonomy that a worker has in performing work tasks, is a central component of this model and has been found to be closely related to job satisfaction. This affects not only

executives but also workers in lower status jobs with little freedom to make decisions. The most adverse reactions of physical strain, anxiety and depression can occur when the psychological demands of the job are high and the workers decisions latitude in the task is low (Karasek 1989; Karasek & Theorell 1990). Lack of control over working systems has been found to lead to stress and predisposes to cardio-vascular disease (Marmot et al. 1998). The ability to plan work tasks involves several aspects of control in the work environment. Role conflict, ambiguity, overplanning and work methods, all of which mean that the employee has a lack of control, predispose the individual to stress (Sutherland & Cooper 1988:3–31). Role conflict occurs when compliance with one set of role pressures makes compliance with another set of role pressures impossible. Role ambiguity refers to inadequate or misleading information about how a person is supposed to do the job (Ross & Altmanier 1994).

- Support with work processes: The support component of Karasek's model of Demand–Control–Support refers to optimal matching of the amount and type of support appropriate to a work situation with its particular demands, and the amount of decision latitude available to the worker in that situation. There are different types of supports provided in the workplace through relationships with peers and supervisors. These human ties are important in mental and physical health (Cohen & Syme 1985; Winnubst & Schabracq 1996:87–104).

- Stimulation: De-skilling and fragmentation of tasks has been linked to stress. The person must 'fit' into the work environment (Edwards, Caplan & Van Harrison 1998:28–67). This fit in the Person–Environment Fit model refers to the match between what the worker expects and what the job actually requires. As well as expectations, the skill of the worker fuses with what the job requires (Cox 1978). The person-in-environment psychology has been extended by Wapner and Demick (2000:27) to be holistic, developmental and systems orientated.

- Effort–Reward: Siegrist's Effort–Reward model (1998:190–204) proposes that there is an appropriate balance between the rewards that the worker expects and the efforts needed to obtain those rewards. Workers act formally and informally to change their work environment so that inequities between what they offer and what they get, and what they perceive other workers receive in relation to what they contribute, are removed. Using different terminology but dealing with similar concepts as the Person–Environment fit and Effort–Reward, Williams (1993) refers to the congruent person and organisation. Congruency is achieved by merging belief systems, values, plans and strategies so 'so that we can gracefully move through life being congruent and functional' (1993:165). Although Williams is casting his argument in terms of the ideal, there is no doubt some validity in the optimisation of enhancing employee personal strength and enhancing the creative potential of the organisation.

- Ability to unwind: To recover vitality through interpersonal relationships at work and through relationships and interests in the home domain is necessary because of the persistent requirements of work. The circular and reciprocal relationships between work and non-work or work and home domain are important because the balance in these linkages affects quality of life for the worker and his/her significant others (Gutek, Repetti & Silver 1988:141–174).

- Participation: Participation of employees in the work effort varies from optimal performance producing maximum productivity, to hostility that sabotages productivity. Holbeche (1998:30–35) found the more common response from employees experiencing poor work conditions was non-participation which meant holding back on human resources. The most extreme problem of this kind is called 'presenteeism', which occurs when employees come to work but contribute little to the work effort because they are distressed by their jobs or some aspect of the work environment (Schabracq, Winnubst & Cooper 2003:xv). Aronsson, Gustafsson and Dallner's study (2000:502) into 'sickness presenteeism' shows that members of occupational groups whose everyday tasks are to provide care, welfare services, teach or instruct have an increased risk of being at work when sick, which is itself a form of presenteeism.

- Emotional work: Performance of emotional work in the long-term, particularly in the caring professions and service industries, like teaching, can produce a

'burnout syndrome' that is characterised by mental exhaustion, cynicism and loss of commitment (Maslach 1982, 1998:68-85; Maslach & Jackson 1986:253–266).

2.5.3 Stress

Stress is an imprecise term, but in spite of this it has a significant place in the literature that deals with work and health. Semmer (1996:53) defines it as denoting states of 'tension' that are experienced by the individual as aversive and may have psychological and/or physical components. 'Psychological stress' according to Kaplan (1996:3–4), are 'the socially derived conditioned and situated processes that stimulate any or all of the many manifestations of dysphoric affect falling under the rubic of subjective distress'. Stress conveys negative emotional states such as anxiety, frustration, anger and guilt and/or physiological states such as racing heart, sweaty hands, dry mouth and increased respirations. Stress has to do with the appraisal of threat and/or loss. This definition implies that stress has to do with anticipated or experienced thwarting of goals. Stressors are characteristics in the environment that tend to elicit these emotional states in a given population. Stress is influenced by various environmental, psychological and social factors, but it is uniquely perceived by the person and intensifies when environmental change or a threat occurs (internally or externally) to which the person must respond (Murray, Zentner & Samiezade-Yard 2001:257).

A certain degree of stimulation in the work environment is considered positive and motivating. The pattern for stimulation/stress and performance is shown in the Figure 3 below. The Figure shows that while too little can cause apathy, excessive stress leads to unhealthy states and poor performance.

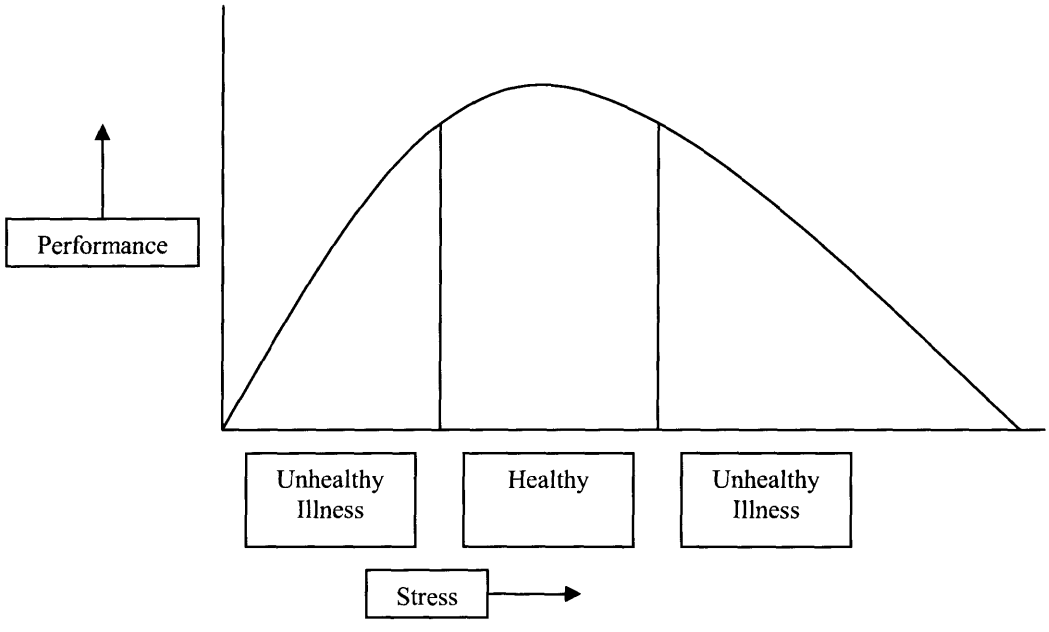

Figure 2-3: Stress/stimulation and performance
Source: (Petersen 1990:23)

Cooper (1998:1–2) states that there is a 'mountain of research in the cognate area of occupational stress' and it has developed certain principles in considering the effects of various stressors (Cooper & Payne 1988; Cooper 1998). These are summarised by Murray Zentner and Samiezade-Yard (2001:258) thus:

- the primary response to a stressor is behavioural, and the physiological impact is secondary
- the impact is cumulative
- circumstances alter the impact or harm done by the stressor
- people are remarkably adaptive

- various psychological or social factors may ease or exacerbate the effects of the stressor
- there are definite low points when stressors are poorly tolerated
- conditioning is an important protector
- responses throughout life are local and general—local responses attempt to wall off and control the stressor, whereas general responses are characterised by alarm and resistance and when body resistance is not maintained, the end stage is exhaustion.

Theories of workplace stress management vary from individual approaches that support individuals' coping abilities, to more integrated strategies. The basic difference in the two approaches is that, in the former approach the individual is responsible for employee health, whereas in the latter approach, there is a synergy with individual and collective responsibilities for employee health in the workplace. Integrated strategies target the organisational demands and stressors, and stress responses in individuals. The basic beliefs behind these integrated strategies are elaborated by Quick, Quick and Nelson (1998:247) and include:

- the interdependence of individual health and organisational performance
- managerial participation in employee health and organisational performance
- non acceptance of individual and organisational distress as inevitable
- unique reactions of individuals and organisations to stress
- the ever changing nature of organisations.

2.6 The reality of the burden of injury and ill health at work

Statistical data is used extensively by government authorities, like WorkCover (1997–1998), to provide a basis for the 'national scorecard' in managing employee health. Aggregate data do not give an adequate portrayal of any social problem when considered by themselves, because the reader is not drawn into the human story embedded within the quantitative data. Not only is the personal side of the scorecard lost, there are shortcomings in statistic data itself. Mandryk et al. (2001:359) point out that the data often underestimates the problem, and there is a lack of information on causes of injuries and a lack of information on the relationship between injuries and outcomes for the injured worker.

Nevertheless, the following statistics that deal with injuries and illnesses in the Australian workforce have been compiled from a number of authors who comment on the extent of workplace injury and disease. The sources for this data are: Industry Commission 1995:Vol 1, Pxix, Vol 11, P19–33; Driscoll & Mayhew 1999:28–51; Driscoll et al. 2001:45–66; Ellis 2001:xxiv-xxv; Emmett 1999; Foley, Gale & Gavenlock 1995; Foley 1997; Johnstone 1997:13–14; Kerr et al. 1996; Mandryk et al. 2001: 349–361; Mayhew & Peterson 1999b:1–13; Stiller, Sargaison & Mitchell 1998:25.

Mortality:

- there are 2900 deaths each year as a result of work-related injury and illness—a significant number of these deaths are due to occupational cancers from exposure to hazardous material (Mayhew & Peterson 1999:6)

- there are 603 work-related traumatic deaths per year (Driscoll et al. 2001:45).

Injury:

- up to 650,000 workers, that is, one in twelve workers, suffer injury or illness from work
- there is a trend towards an increase of serious injuries causing permanent disability (Stiller, Sargaison & Mitchell 1998:25)

Occupational disease:

- the incidence of occupational disease is likely to rise related to the recognition of several factors:
    - chronicity (which refers to the long length of exposure, e.g. noise-induced hearing loss and musculo-skeletal disorders)
    - latency (which refers to the length of time from exposure to appearance of the disease e.g. asbestosis occurs about twenty years after exposure)
    - the multifactorial nature of illness (Ellis 2001:xxiv-xxv)
    - the significant underestimation of the level of occupational injury and disease is addressed (Bohle & Quinlan 2000:35–40)
- work-related health problems affect people after retirement
    - up to 300,000 persons over the age of sixty-five are estimated to be suffering from work-related health problems

Costs:

- direct Workers' Compensation costs constitute 1.5% of GNP or 5% of GDP, at least twenty billion dollars (Industry Commission 1995:99)

- workers compensation costs are 20% of total health care costs
- of the total costs of workplace injury and disease:
    - 30% are borne by the injured worker and their families
    - 40% are borne by the employers in lost productivity
    - 30% are borne by the community in social security payments and health subsidies (Industry Commission 1995:102)

Equity:

- Workers' Compensation figures seriously understate the extent of occupational disease (Foley, Gale & Gavenlock 1995:171)
- some groups, (for example, the self-employed), are not entitled to make Workers' Compensation claims for work-related injury and disease
- some groups are reluctant to make claims, particularly workers from non-English speaking backgrounds, and those in precarious employment (Bohle & Quinlan 2000:35–46).

Dr. Yossi Berger (1999:52), Head of the Occupational Health and Safety unit of the Australian Workers Union, states that what matters at work is the workers 'expressed views about occupational reality'. He describes these expressed views as the 'mumbling environment' to emphasise that workers are living and experiencing this harm at work but no one is listening to them.

In the same vein, Wilkinson expands this view of the social reality of employee health when she speaks about employee sickness not being related just to technical exposures of harmful agents, but more related to how people treat each other in the work environment.

She states that: '[Employee injury or ill health] is not simply a biological process triggered by chemicals, or the fabric of the organisation. It is stimulated and perpetuated by its people through group processes, action and behaviour at every level of the organisation' (Wilkinson 2001:24).

Bohle and Quinlan (1991:92) emphasise that harm to employees is usually not sudden and unexpected. On the contrary, there is a definite probability of harm. The reality for workers is that there is a probability of work-related injury and illness because the patterns of injuries between occupational and industry groups are consistent over time. In 2000, Bohle and Quinlan (2000:46) said that 'work-related injuries and illnesses constitute statistical probabilities' and this undermines any attempt to portray them and illnesses as 'unexpected or aberrant events'. The familiarity of workers with injury and work-related disease has contributed to their 'deep-seated cynicism and skepticism' at work about the workplace being safe for them (Berger 1999:58).

2.7 The university as a workplace

In Australia, the University as a workplace has undergone considerable change since 1989, particularly because of changes to Federal government funding arrangements in the tertiary education sector. These funding changes are part of economic rationalism applied to all aspects of government social policy (Pusey 1991:10). Tertiary education in Australia is one of the last industries to experience the affect of these changes. The public service sector and health industry underwent this process earlier. The results of these funding changes mean that competition exists between universities for domestic and overseas students. The funding arrangements for universities are focused on outputs of

the education industry rather than inputs. This approach is in line with funding in relation to other social policies such as those dealing with health services. These factors and the decentralisation of wage agreements promote the emergence and growth of managerial governance in universities (Karmel 1996:23–33).

The change in governance style, the concern for student numbers and successful completion of degrees by the students, is imposed across the cohesive collegial society that was a traditional characteristic of university life (Tilley 1998:5–11). Universities, as public institutions, share some of the significant features of public sector employment relations. There is a broader political 'accountability' over and above the usual managerial accountability on employment relations in the tertiary education sector. Both management and unions are more heavily conditioned by political contingencies and are sensitive to government policy (Gardner & Palmer 1997).

Within the education sector there have been many changes that have eroded the influence of employees. Changes in the structure of academic labour have followed the fiscal crisis in Australian tertiary education. Barrow (1995) documents the issues involved: the casualisation of the workforce; the collapse in compulsory unionism; the advent of enterprise bargaining; and the inability of the unions to act with sufficient vigour to prevent changes that are disadvantageous to employees, and these ensure a decline in the sector generally. Pusey (1991:148) ties this 'rationalised' Australian university system to the effect of economic rationalism in Canberra.

The Community and Public Sector Union (CPSU) represents general staff only in the Tertiary Education sector, and the National Tertiary Education Union (NTEU) represents academic staff and can also represent general staff. The CPSU nationwide has more than ten times the number of members of the NTEU (Gardner & Palmer 1997:540).

The university is industrial in its approach in that it has structure, systems, and management processes that are hierarchical, and workplaces exist in specific localities. But the university is emerging from this historical situation with the growth of distance learning modes and the development of different educational products for diverse markets. Tertiary education is an industry in transition.

Education in Australia is increasingly thought of in terms of markets, and market ideology is guiding educational priorities and funding (Marginson 1997). The commercial dynamic of the education industry has its grounding in the international markets of education. Accompanying the market orientation, there is greater emphasis on 'user pays' rather than full state provision, despite these institutions being fully state controlled and retained. The effect of this commercialisation is seen in the movement from state funding of students and educational institutions to a more self-investing and self-reliant mode. Although he argues against it, Marginson (1993:233) regards economics as the 'master discourse' in education policy in Australia.

Cunningham et al. (1998:6) implicate the following influential factors in tertiary education:

- the impact of internationalisation on society and organisations
- the increasing potential of technology for information and communication
- the demand for more flexible and tailored modes of delivery of educational products.

These forces, according to Cunningham et al. 1998, will affect the university by:

- weakening of the resource base of the established universities
- fragmentation of academic function, status and autonomy
- obsolescence of the physical university (as distinct from the virtual university).

As a response to this market-driven structuring of the institutions there is a structuring of the academic labour force. The top tier of academics consists of those close to industry-based research and those generating intellectual property. The next tier consists of the tenured academics of the more traditional kind, and the last tier comprises casual and part-time academics with insecure jobs whose contracts often rely on 'soft money' generated from the market (Marginson 1997:275). Ransome (1999:107) observes an increasing polarisation between core employees and peripheral employees because the latter are trapped in more menial jobs that are not associated with promotion

As part of this market focus, there is an attempt on the part of educational institutions in Australia to pursue stronger engagement between the universities and the regions to which they belong. There are 150 university campuses of the thirty-eight different institutions throughout Australia in various regional settings and they engage with the local community and economy in different ways (Garlick 2000). The Association of

Commonwealth Universities (Bjarnason & Coldstream 2003:312) regards engagement as a core value of university life. This engagement is pursued by the desire to link knowledge with its application and theory with practice through networks of policy advisors, governments, businesses, 'think-tanks', diverse donors, stakeholders and the wider community (Bjarnason & Coldstream 2003:312). In similar vein, Greenwood and Levin (2000:96) suggest that universities should reconstruct their relationships with society by seeking and solving major social problems of importance to stakeholders. Meeting identified social and industrial needs of the community with this new knowledge production by universities carries significant implications for the workforce. It involves changes from the old disciplinary and university-centred process to a new transdisciplinary, multi-stakeholder cooperative process that operates at the site of the knowledge application (Jacob & Hellstrom 2000:1).

The general staff who provide administrative support to the academic functions of teaching, research and community service have been affected by these changes in the tertiary education industry as well. The Winefield study (2002), discussed below, reports that the main impact on general staff is the reduction of opportunities for advancement with the decreases in funding for support throughout the industry.

2.7.1 Health issues in the tertiary education industry in Australia

In July 2002, the National Tertiary Education Union supported a national survey, *Occupational Stress in Australian Universities* (Winefield et al. 2002). This survey was conducted by Anthony Winefield (University of South Australia), Con Stough

(Swinburne University of Technology), Jagdish Dua (Sydney Stress Management Centre), Nicole Gillespie (University of Melbourne), and John Hapuararchchi (University of South Australia). The survey was funded by grants from the Australian Research Council.

Winefield and his associates used seventeen survey instruments to investigate different aspects of occupational stress in the university environment. There was a response rate of 25% from academic and general staff surveyed from seventeen universities in Australia. These universities represented about half of the universities in Australia. The key findings of the survey (2002:8) are listed below:

- Approximately 50% of the Australian university staff taking part in the study were at risk of psychological illness, compared with only 19% of the Australian population overall.
- Job satisfaction in academic staff was low, relative to other occupational groups, but average in general staff.
- Most academics were dissatisfied with five aspects of their job: university management; hours of work; industrial relations; chance of promotion; and rate of pay. In contrast, most general staff reported dissatisfaction with only one aspect of their job, chance of promotion.
- Psychological strain was highest and job satisfaction was lowest among Level B and C academics (Lecturers and Senior Lecturers), particularly those working in the Humanities and Social Studies.

- For academic staff, job satisfaction was higher at the older than at the newer universities. For general staff, job satisfaction was unrelated to university type or age.
- More than 30% of academics reported working more than fifty-five hours per week.
- At the university level, psychological strain was predicted by financial pressures (university income for academics, percentage cuts in government grants for general staff), while job satisfaction was predicted by staffing pressures (current student/staff ratio for academic staff, percentage staff cuts and grant cuts for general staff).
- At the individual level, the organisational factors that best predicted psychological strain were job insecurity and work demands. The best predictors of job satisfaction were procedural fairness, trust in Heads of Departments, trust in senior management, and autonomy.
- Trust in senior management and perceptions of procedural fairness (both predictors of job satisfaction) were low.

The theoretical perspective for job stress for Winefield's research (2002:18–20) was: Karasek's Demand—Control—Support theory (Karasek 1979); Caplan's (1983) Person—Environment Fit theory (Caplan 1983); and the Siegrist's Effort—Reward imbalance model of stress (Siegrist 1998). These theories, as explained in Chapter 3 are used to interpret the qualitative data from this thesis. The results of this study are consistent with Koopman et al.'s (2003) study in a highly educated workforce in northern

California. In the Koopman study mental health is found to be poorer on average with these employees compared with general USA norms. Most of the factors associated with poor mental health are potentially modifiable (e.g. stress and less satisfaction with work and home life and engaging in current hazardous and harmful drinking). The authors are cautious with interpretations because of the single worksite which is the context for the research but suggest that other worksites in different geographical zones and with different demography should re-examine these relationships.

2.8 The workplace as a setting for health promotion

Broad contextual factors influencing health have been incorporated into models for health promotion that develop interventions which in turn target individual behaviour, interpersonal, organisational, community, and public policy. There are several assumptions behind this multilevel approach. The first assumption is that human action is modifiable. Modifying behaviour and therefore improving health is fundamental in Stroebe and Stroebe's (1995) book in *Social Psychology and Health*. The second assumption is that human behaviour varies according to contexts. Although human behaviour may be a proximal determinant for health, different contexts may be powerful, but distant determinants for health (Conner & Norman 1996). The third assumption is that each level forms the context for those at more micro levels (Gottlieb & McLeroy 1994:471).

The Ottawa Charter suggests that there are five principal areas in which health promotion should be situated (WHO 1986):

- building healthy public policies
- creating supportive environments
- strengthening community action
- developing personal skills
- reorientating health services.

The workplace has been targeted as an environment in which these principles could be put into action. The National Steering Committee on Health Promotion in the Workplace (1989:8) defines workplace health promotion as, 'those educational, organisational or economic activities in the workplace that are designed to improve the health of workers and therefore the community at large'. Health agencies regard the work setting as the single most important channel to systematically reach the adult population through health information and health promotion programs (Dugdill & Springett 2001:285). However, the setting based approach relies on how the organisation and systems function so that lasting outcomes based on policy and environmental changes can be achieved rather than just changes in individual behaviour risk factors (King & Whitecross 1999:51–52).

Nutbeam and Harris (1989:9) and Valente (2002:3–86) examine theories related to the nature of health behaviour and health promotion in the workplace. First, there are the theories that explain health and health behaviour by focusing on the individual. Second, there are the theories that explain changes in community mobilisation. Third, there are the theories that guide the communication strategies for health promotion. Fourth, there are the theories about organisational change and management, and models of understanding intersectoral or interorganisational action. Fifth, there are models that explain the

development and implementation of healthy public policy. These theories and models assist in understanding the complexity of the application of health promotion to the workplace. In particular, the models convey the effect of multi-layered health promotion strategies on workers.

Rosen comments that organisations usually develop programs with the aim of productivity in mind and rarely are the functions of productivity and health combined (Rosen 1986:10; McCunney 2001). The terms 'healthy organisations', 'healthy work organisations', and 'organisational health' all refer to the notion that worker well being and organisational effectiveness are linked (Rosen 1986:15) and can be fostered by a common set of job and organisational design characteristics (Murphy & Cooper 2000:1). More importantly, Rosen (1991) states that successful companies foster the following core values in order to have healthy and productive employees: respect for all; leadership; managing change well; life-long learning; workers appreciating assets; sick employees sabotage long-term investments; celebrating diversity; and work/family balance. McCunney (2001:30–35) takes the argument further and points out that the health of employees is a competitive advantage to the organisation. Rather than health promotion activities being an *effect* of organisational success, McCunney states that employee health is a *reason* for organisational success. Riedel and his fellow investigators (2001:186–188) review the literature on health promotion and organisational productivity and state that the potential value of the intervention depends on how the purpose is defined. They present a conceptual framework to study the effect of health and productivity by specifying the cost of disease in dollar terms and performance loss calculated in dollars as well.

Dooris (2001) reviews his experiences with a health promoting university in University of Central Lancashire in the United Kingdom. The aim of the program is to incorporate the commitment to health promotion in the organisation culture so that health of the University community that is, staff, students and wider community members is improved. Getting and maintaining management's commitment to the program proved to be critical. The American Network of Health Promoting Universities (2002), with its seventy-two institutional members, embraces the concepts of health promotion by taking account of the health consequences of their policies, decisions, processes, programs and activities and disseminates best practice through their multiple roles as educational organisation, employer, community institution, and often health care provider.

Heath promotion in the workplace has its critics, particularly if the focus is taken off safety and placed on individual risk factors for health like smoking and diet. Both health promotion and Occupational Health and Safety can take an individual (i.e. aiming at the lifestyle and safety of individual workers) and/or a comprehensive approach (i.e. aiming to improve the quality of life and health of the whole population in the workplace). There is a limited and individual application of these approaches in contemporary workplaces. A comprehensive approach would include the criteria developed by Dwyer (1997) that include: employer-funded; participant-based priority setting; informed by social justice principles; use of existing resources in the organisation and community; recognition of policy and legislative requirements; voluntary participation; site-based coordination; and evaluation and monitoring.