Protecting and promoting the health and safety of older workers

Opportunities and challenges

By

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Doctoral Thesis

Submitted in partial fulfilment of the requirements for the award of
Doctor of Philosophy of Loughborough University

March 2017

Abstract

As the 21st century proceeds, individuals are increasingly working into later years to support themselves and maintain their quality of life. This changing pattern of employment has implications for workers, employers and society alike. Although older workers have much to contribute, individuals may experience health issues or physical, sensory or psychological changes related to ageing. Health and safety statistics indicate that older workers are a vulnerable group. Employers then, have a responsibility to examine the working environment and protect those with reduced capabilities. For society to function, older workers need to be able to remain in work, otherwise this will impact on both the economy and older individuals' quality of life.

This thesis aimed to understand the opportunities and challenges employers encounter when trying to protect and promote the health and safety of older workers.   The research used qualitative approaches, combining interviews and focus groups to provide 'rich' data on the circumstances of older workers. Triangulation was used, collecting data over different time periods, from different sources, to help balance out any weaknesses across the studies. Data were analysed using thematic analysis.

A review of the literature found that there is no consistent definition of 'ageing' or 'older' worker. Many researchers have used chronological age and, therefore, this thesis used 50 as a threshold. The literature highlights that older workers have a wealth of knowledge and skills to bring to the workplace. Negative perceptions, however, regarding natural ageing and adaptability exist. Other authors have argued that organisations need to provide a safe environment for older workers and implement measures to mitigate changes in abilities, whilst recognising that there is no 'one size fits all' strategy.

First, an initial scoping study was undertaken with employers, which sought to understand their perceptions concerning the ageing workforce. The study also

collected information on the health and safety age management strategies that have been implemented within the organisations. Interviews with employers (senior managers who influence health and safety management strategies) (n=41) revealed that, in line with literature, there is recognition that older workers bring benefits to the workplace. However, some comments demonstrated inaccurate stereotyping. The interviews found that these employers were uncertain how to proceed with implementing actions to protect the health and safety of their older workers.

Two subsequent studies, consisting of focus groups (n=10) and interviews (n=50) were then conducted, which explored older workers' experiences of working into later life and their views on the issues identified by the employer interview study. The older worker interviews also examined their perceptions regarding their health and capabilities, appropriate health and safety measures in response to this and interviewees' anticipated future in the workforce. Older workers explained that they do not feel supported or engaged. They are fearful of reporting capability changes that may affect their ability to perform work tasks, as they believe this may have negative consequences for their future employment. During discussions, they suggested various measures that may help them remain in the workforce for longer.

The information gathered during the literature review and the findings from the first three studies, were then used to develop examples of good practice health and safety measures that organisations could implement to help protect and promote the health and safety of older workers. A final interview study with key employer representatives (n=16) was conducted, to understand whether the health and safety good practice measures might be considered beneficial and achievable. This study found that although organisations recognised the benefits of health and safety measures tailored for older workers, the feasibility of some of the suggestions was in doubt. Budgetary constraints, insufficient time and lack of necessary knowledge were seen as particular obstacles to implementation.

This thesis has identified that although research evidence exists in relation to measures to support the health and safety of older workers, e.g. the benefits of health promotion, improved work scheduling, workplace assessments etc, this is rarely translated into practice. Within organisations, there is uncertainty about age management for older workers and limited understanding of the divergent needs as workers' capabilities change. The default position then becomes to cater for a 'typical' worker. A coordinated multi-disciplinary approach between health and safety, occupational health, human resources and operational management is required. This thesis argues for an integrated age management strategy, with an emphasis on proactive prevention, in the interests of protecting and promoting the health and safety of older workers.

Acknowledgements

Publications

Journal paper - refereed

Drake C, Haslam R, Haslam C, 2017. Facilitators and barriers to the protection and promotion of the health and safety of older workers. Policy and Practice in Health and Safety, DOI: 10.1080/14773996.2017.1289453.

Journal paper – professional journal

Drake C, Haslam R, Haslam C, 2014. When I get older. Safety and Health Practitioner, 32, 12, 31-33.

Conference contributions

Drake C, Haslam R, Haslam C, 2016. Management strategies to help engage, protect and promote the Health and Safety of older workers. In: Proceedings the National Food and Drink Manufacturing Health and Safety Conference, 4-5 October 2016, Scunthorpe.

Drake C, Haslam R, Haslam C, 2014. What age management strategies are employers using regarding the health and safety of their older workers? In: Proceedings 7th International Conference of Workingonsafety.net (Wosnet), 30 September - 3 October 2014, Glasgow.

Table of Contents

List of Appendices

Appendix A

    Informed consent form (used for all four studies)

Appendix B

    a) Information sheet sent to employers regarding study one

    b) Interview schedule for study one – interviews with employers

Appendix C

    a) Recruitment material for study two

    b) Moderator's guide for study two – focus group discussions

    c) Prompt cards

Appendix D

    a) Recruitment material for study three

    b) Interview schedule for study three – interviews with older workers

    c) Suggestions list

Appendix E

    a) Recruitment material for study four

    b) Interview schedule for study four – interviews with employers and worker representatives

Appendix F

    Good practice list of health and safety measures employers could implement to help older workers

List of Tables

List of Figures

Abbreviations

ACAS	Advisory, Conciliation and Arbitration Service
CIEHF	Chartered Institute of Ergonomics and Human Factors
DWP	Department of Work and Pensions
EU-OSHA	European Agency for Safety and Health at Work
GPs	General practitioners (doctors)
HR	Human Resources
HSE	Health and Safety Executive
IOSH	Institute of Occupational Safety and Health
LAs	Local authorities
NIA	National Institute on Aging
ODI	Office for Disability
ONS	Office for National Statistics
PPE	Personal protective equipment
RIDDOR	Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995
SHP	Safety and Health Practitioner Magazine
UN	United Nations
WHO	World Health Organisation
WTO	World Trade Organisation

Chapter 1   Introduction

"The dramatic increase in average life expectancy during the 20th century ranks as one of society's greatest achievements."
(NIA 2016)

The early decades of the 21st century are being marked by significant changes in the profile of the working population. Individuals are increasingly working into later years to support themselves and maintain their quality of life. The changing pattern of employment has implications for workers, employers and society alike.

Underlying the demographic trend is that the world population is ageing rapidly (WHO 2015a), with life expectancy continuing to increase, in large part due to health improvements (ONS 2015a). In 1900 the majority of people did not survive past 50 years of age, but now life expectancy in several countries is at least 81 years (NIA 2016).

In the UK between 1960 and 2010, the average life span for a male had increased by 10 years and 8 years for a female (ONS 2012). In the UK in 2012, 35% of the total population was over 50 years of age and the projected figures are set to increase to 38% in 2021 and 41% in 2041 (ONS 2015b). Figure 1.1 compares the UK age structure in 2014 with a projection for 2039.

In Europe in 1985, 12.8% of the total population was over 65 years; in 2010 that figure had risen to 17.4% and by 2060 it is expected to double (EU-OSHA 2012a).   While this demographic shift started in high-income countries, it is the low and middle income nations that are now experiencing the highest rate of change e.g. China and India (WHO 2015b).
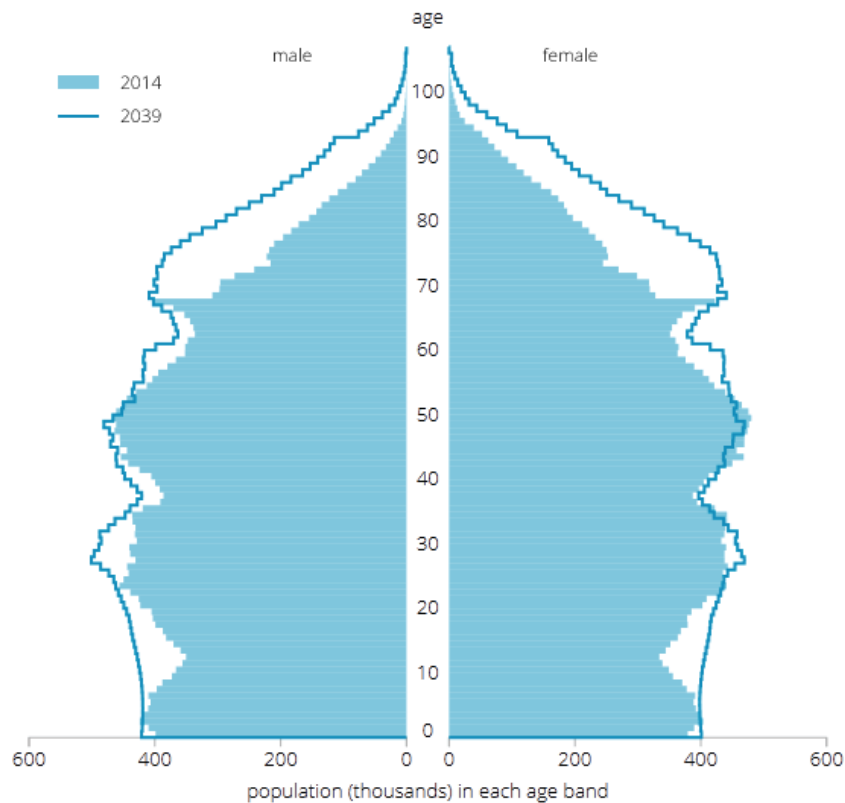
Figure 1.1 UK population age structure, 2014 and projection for 2039 (ONS 2015b)

Policy makers are having to respond to the ageing population. As a result of the pressure on state pensions, the UK government has already removed the mandatory retirement age and increased the default pension age. This will have an impact on employers and how they manage their ageing worker population. Statistics provided by the Department of Work and Pensions (DWP 2016) estimate that by 2020 the over 50's will make up almost a third of the working population.

It is well documented that as people age the differences among individuals increases (Kumashiro 2000, Walker 2014). The literature discusses various age related changes that older workers may experience e.g. physical, cognitive, sensory, specific health issues. With an increase in the overall age of the workforce, employers face both health and safety challenges as well

as opportunities. Unless employers examine the consequences of their ageing workforce and respond appropriately, they may face increased injuries and reduced productivity. Griffiths (1997) stated that "merely trying to increase the number of older workers, without a corresponding examination of the consequences of such actions for their health and productivity, would be foolhardy".   It is also recognised that older workers must meet the job requirements. Therefore it is necessary to have contingency plans in place should their reduced capabilities exceed work demands.

The World Health Organisation (WHO 2015b) has devised a global strategy and action plan looking to foster 'healthy ageing'. This is built around 'functional ability', enabling older people to continue participating in society. 'Continuous ageing' as discussed by Walker (2014), suggests the loss of functional ability should be placed in context of earlier life stages. Research suggests that jobs should be redesigned to take into account "the effect of ageing on the job and the effect of the job on ageing" (Kumashiro 2000). Promoting an age positive culture may help organisations maintain the knowledge and skills of older workers (Haslam et al 2013). Leaders need to dispel the myths of older workers as they bring a wealth of skills and experience to the workplace and looking after older workers' health and safety and viewing them as an asset should be a positive business decision.

1.1   Historical context

Retirement in its contemporary form is the product of interactions between social, economic and political influences (Walker 1980, Macnicol 2002). The early stages of the industrial revolution witnessed high volumes of rural to urban migration to meet the labour-intensive requirements. However, the introduction of new production technologies resulted in reduced labour needs. "Managerial and industrial efficiency motives became influential" (Macnicol 2002). Older workers were perceived as unable to learn new skills, so were seen as surplus to requirements (Walker 1980, Macnicol 2002).

Civil servants, in 1859, followed by schoolteachers in 1892, were the first occupational groups to receive a private pension as part of their employment.

It was believed a fixed retirement age of 65, in relation to these groups, would increase efficiency, as previously retirement had occurred due to ill health or physical restriction (Walker 1980). Following this, organisations in the private sector started to recognise that offering a private pension increased employee loyalty, but also enabled the organisation to remove older employees who may otherwise block jobs (Macnicol 2002).

In 1908 the Old Age Pension Act changed retirement age from 65 to 70 years, due to the rising economic cost. This was subsequently reduced to 65 years in 1925 (Walker 1980). However, the provisions under the Act were not universally implemented, favouring the 'deserving' sick or unemployed if they had previously held jobs (National Archives 2017). Gender divisions were the norm, with a male bias, as males were seen as the breadwinner and policy was aimed at them.

In the 1930s there was concern about the burden of an ageing population (Macnicol 2002). This culminated in The Beveridge Report in 1942, which became the blueprint for modern welfare state. This sought to provide a comprehensive system for everyone from 'cradle to grave', by seeking financial contributions from the working population (National Archives 2017). The unemployed, sick and pensioners benefitted from contributions made by employers, workers and the state. It is believed, that this in part, contributed to the social construction of ageist stereotype of 'old age' being economically dependent and frail. While there may have been some truth in the higher levels of poverty experienced by pensioners in the 1950s and 60s, there are no longer the same levels of poverty, but these perceptions still remain (Walker 2002).

Across Europe in the 1970's and 80's there was a rise in employees taking early retirement, leading to a concern among policy makers regarding unsustainable future provisions (Walker 2002). Governmental policies have changed towards older workers: during the 1970s/80s older workers were encouraged to seek early work exit, but since the early 1990s there has been an emphasis on retention of their services (Macnicol 2010).

1.2 External influences

In an increasingly global market the work environment and the way organisations structure their operations, have undergone major changes in the last few decades, all necessary in order to remain competitive (Clarke 2003). Not only has there been a rise in the service sector and decline in manufacturing, but the traditional routinized approach with work typically segmented into individual tasks has been replaced by job flexibility requiring constant adaptation. External policy makers also have a significant bearing on employers and older workers (Figure 1.2). The changing nature of work and the workforce present both opportunities and challenges for employers, older workers and society.

World Trade Organisation (WTO) ⟶ Intergovernmental regulator for international trade

European Union (EU) ⟶ Legislation and policy setting

UK Governments (Ministries) ⟶ Policy setting in response to ageing population and monetary pressures i.e. Department of Work and Pensions (DWP).

Regulators/Enforcement Authorities ⟶ Legislation i.e. Equality Act, Disability Discrimination Act, Health and Safety at Work Act.

Employers

Older workers

Figure 1.2 Summary of key external bodies and their impact on older workers in the UK ('pre-Brexit')

1.3   Aims of this research

The overall intention of this thesis was to increase understanding of the opportunities and challenges encountered by employers seeking to protect and promote the health and safety of older workers.

Specific aims of this research were to:

- identify the issues employers anticipate will arise from the workforce ageing
- document the actions employers have already implemented to protect the health and safety of older workers
- understand older workers' perceptions on working into older life and the health and safety measures that needed to be in place to help them remain in the workplace
- identify good practice health and safety measures that can be implemented by employers
- assess employer reactions regarding the feasibility and effectiveness of the different good practice health and safety measures directed at protecting older workers

1.4   Structure of this thesis

This thesis addressed the research aims with a literature review and field studies. Figure 1.3 shows an overview of the thesis methodology.

Introduction
Chapter 1

Review of the literature
Chapter 2

Research methodology
Chapter 3

Employer interviews
Chapter 4

Older worker focus groups
Chapter 5

Older worker interviews
Chapter 6

Employer representatives' interviews
Chapter 7

Discussion and conclusion
Chapter 8
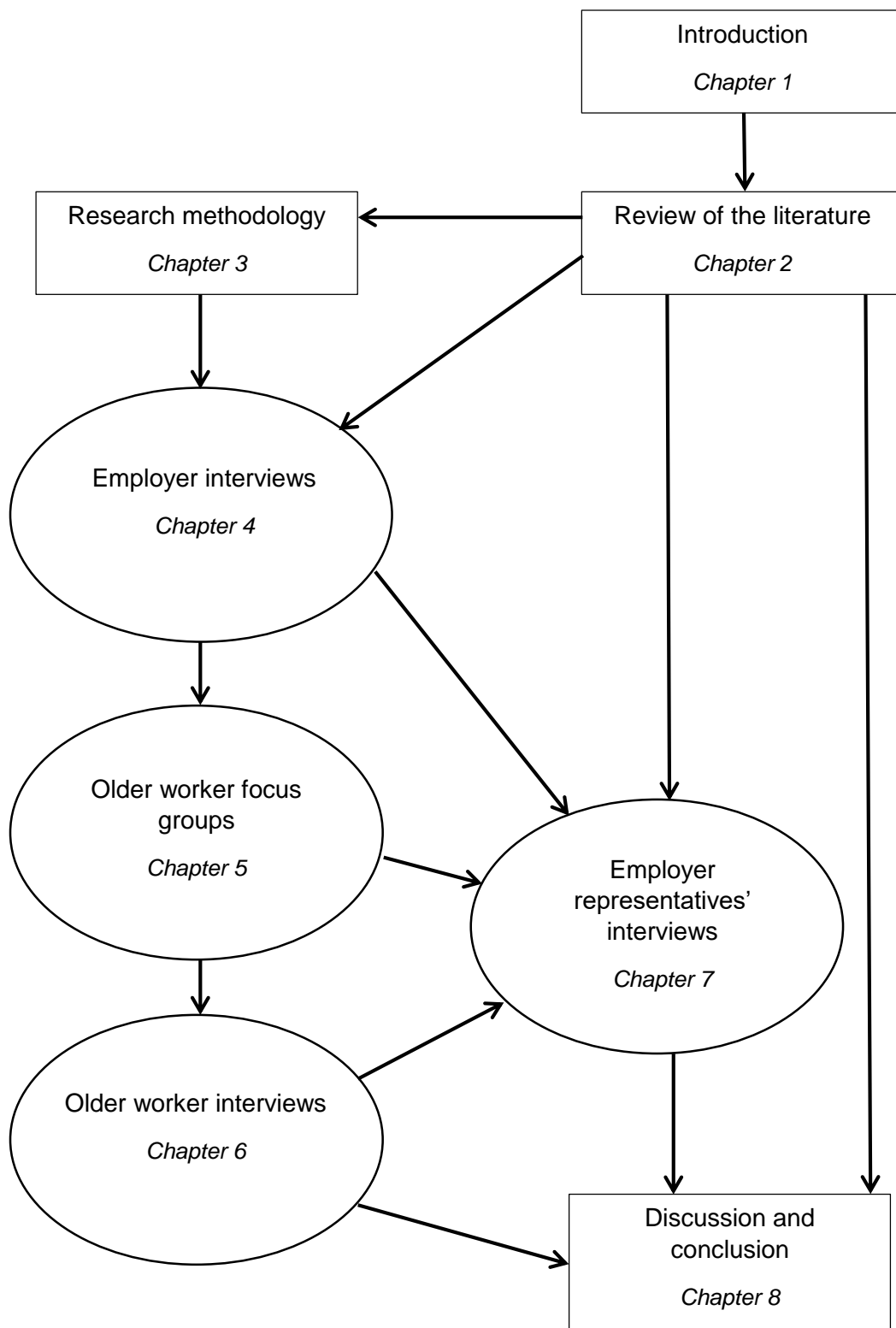
Figure 1.3 Overview of thesis

The thesis is structured as follows:

Chapter 2 provides a review of the literature on age related capability changes and the impact these may have within the work environment.

Chapter 3 considers qualitative and quantitative approaches and discusses the methodology most suitable for this research.

Chapter 4 presents a scoping interview study with employers, which sought to understand their perceptions concerning the ageing workforce. The study also sought to identify health and safety age management strategies that have been implemented within the organisations.

Chapter 5 describes a focus group study, which explored workers' perception of working into later life and their views on the issues identified by employers in the study in Chapter 4.

Chapter 6 describes an interview study with workers, which examined their perceptions regarding their health and capabilities, health and safety measures and their anticipated future in the workforce.

The findings from the studies discussed in chapters 4, 5 and 6, together with information gathered during the literature review, were then used to develop examples of good practice health and safety measures that organisations could implement to help promote and protect older workers.

Chapter 7 describes an interview study with key employer representatives, conducted to understand whether the good practice health and safety measures might be beneficial and achievable.

Chapter 8 presents a summary of the thesis, with a discussion of key themes and a critique of the research. Recommendations for future research are also suggested.

Chapter 2   Literature review

This chapter reviews the literature concerning older workers and their health and safety, with a view to understanding what is already known and where there may be gaps in knowledge. There have been several notable contributions to the literature regarding age related capability changes and the circumstances of older workers. This thesis draws extensively on these sources: Boyce (2008), Crawford et al (2010a,b), Costa et al (2005, 2007, 2011), Haslam et al (2013, 2016), Kowalski-Trakofler et al (2005), Silverstein (2008), Streb et al (2008, 2011), Walker (1999, 2008, 2014).

The review commences with the classification and definition of 'older worker'. Statistics concerning the economic activity of older workers are then presented, followed by information on occupational health and injury incidence. The review then examines what is known about age related capability changes and how these may vary between individuals. It then considers how individual capability changes and the work environment may impact on occupational health and safety in the workplace. Finally other relevant factors external to the workplace, but which may have an impact on older workers' health and safety are considered i.e. legislation and home/work balance.

The initial literature search strategy began with searches using the terms 'ageing worker', 'older worker', 'ageing workforce' AND 'health and safety'. Further specific searches followed using keywords e.g. 'shift work', 'training', 'knowledge transfer' etc. Although no date was specified, preference was given to more recent literature. Some of the references from these articles were identified and followed up for additional information. The databases used predominantly were ProQuest, MEDLINE, Science Direct, Scirus, Scopus and Web of Science.

2.1   Age classifications and definitions

The literature provides no consistent classifications of 'ageing' or 'older' worker. Through reviewing the literature, Kooji et al (2008) derived five approaches that characterise age:

- Chronological age – calendar age

- Psychosocial age – negative age norms and stereotypes held by others can result in self-fulfilling prophecy

- Functional age – consists of psychological and biological* age and how capable employees feel completing their normal duties.

- Organisational age – encountering a career plateau or the accomplishment of career goals. Organisational ageing could also result in skill obsolescence.

- Life span age – life stage and family influence and encouragement to retire to pursue leisure time.

where Kooji refers to biological age this refers to declining health

One generalised definition used by some researchers studying populations in western economies is to use the term 'generation' and classifying people by generational cohort groupings according to their birth date (see Table 2.1). These researchers say that each generational cohort will be influenced by their social and historical experiences and these groupings are then used for comparison and explanation purposes, for example - culture (Huichun and Miller 2005), perception (Chi et al 2013), workplace values (Arsenault 2004) and characteristics (Cox et al 2014). It has been noted that there is no consistency in the literature when considering the actual birth dates and ranges of each cohort.

When reviewing the date of birth and cohort ranges the following Table 2.1 provides a guide only.

Table 2.1 Generational cohort and perceived work-related characteristics and values

Generation	Born	Perceived characteristics and values
Veterans (traditionalists or silents)	1922 - 1945	Loyal, hardworking, prefer defined hierarchy, conservative and disciplined, averse to risk, uncomfortable with change or conflict
Baby Boomers	1946 - 1964	Independent, value mutual respect and autonomoy or shared responsbility, strong work ethic, loyal, now seek greater balance between work and leisure, may be technically challenged, equate work with self-worth and personal fulfillment
Generation X	1964 - 1980	Self-reliant, pursue home/work balance, take risks, technically savvy, not overly loyal to employer, value personal development, team player
Nexters (Generation Y, millenials, dot com)	1981 - 2000	Social, fast-learners, require structure but like flexibility, like multi-tasking, technologically savvy, risk tolerant, team player, adaptable to change, the most highly educated and confident cohort

Sources: Arsenault (2004), Huichun (2005), Tolbize (2008), Chi et al (2013)

Reviewing the literature it would appear that the prevalent definition for age is based on chronological age. In terms of 'older worker', whilst some researchers classify this age group commencing at 45 years old (e.g. Naumanen 2006, Boyce 2008, Billet et al 2011a), many researchers have chosen to use 50 years as a threshold (e.g. Loretto and White 2006, Okunribido and Wynn 2010, Haslam et al 2013, Walker 2014). For the purposes of this research older workers are classified as over 50 years of age, in line with other studies. In 2014, the UK government appointed a champion specifically to support over-50s in the UK labour market. Ilmarinen (2001) and Costa et al (2011) believe an early age definition enables possibilities for occupational health and safety preventative measures to be implemented to help with any changing capabilities before ill health or injury occurs.

Streb and Gellert (2011) suggested that it would be useful to discuss 'subjective age' with a worker ascertaining "how old they feel, whether they

see themselves as older, the same age as, or younger than their chronological age". It was believed this information may give insight into any changes in attitudes and perceptions of older workers. Medical professionals discuss loss of function at the molecular and organ level and frailty, when discussing 'ageing' (Walker 2014). The older person may perceive 'ageing' as both a change in physical abilities, but also changes in their experience and quality of life (Walker 2014).

2.2   Societal attitudes and perception of older workers

Various human resource philosophies regarding older workers have been examined; Yeatts et al (2000) described personnel practice using competing models of depreciation or conservation. The depreciation model views older workers "as goods with a limited useful life", with investment viewed as costly. Conversely the conservation model considers older workers an asset "that will continue to grow if properly managed".

Hirshorn (1988) undertook a study to understand employers' responses to older workers. It was recognised that there may be five organisational responses:

- 'proactive' – take steps to implement requirements and plan for the future
- 'at cross purposes' – take time to design and implement policies, but they may be incompatible with other requirements
- 'performance focused response' – importance of job performance, which is usually the focal point for policy and practice implementation
- 'positive means negative ends' – policy process is subverted if the company is subjected to other stresses that take priority
- 'older worker antagonism' – conscious decision to keep older workers from succeeding

The European Commission (2012) conducted a survey 'Active Ageing' to understand the perceptions of age and older people. It found that older workers over 55 years were perceived to be reliable and experienced, but

less open to new ideas, had less knowledge about new technology and were excluded or less willing to attend training. Ng and Feldman (2008) found that older workers demonstrate greater safety-related behaviour, are less aggressive at work, are able to regulate their emotions and have less voluntary absence, so believe the stereotypes around older workers are largely unfounded. Granville and Evandou (2010) reviewed literature on male older workers and found that younger workers were influenced by opinions of older workers. An example was noted amongst young asbestos workers, who copied the erroneous safety actions of their older colleagues. Kooji et al (2008) argued that negative views can impact on an older workers' motivation to continue working. Gaillard and Desmette (2010) examined the influence of age-related stereotypic information and hypothesized that positive information about older workers may boost their intention to remain in the workforce longer and motivate them to learn and develop. Different industries and job demands will also impact on how older workers are viewed. For some professions e.g. professional footballer, the person may be classed as old relatively young in their lifespan, however for other professions e.g. surgeon, they may be considered to be in their prime in their 50s and 60s (Schwerha 2010).

2.3   Economic participation of older workers

The Labour Force Survey gathered data in 2015 on active economic participation by age and gender in the workplace and compared participation rates against 1995, 2005 and 2015 statistics (ONS 2017). A summary of these data for over 50 year olds is shown in Table 2.2.   As the data show there has been an increase in active economic participation between 1995 and 2015, especially noticeable for women and men over 60 years. The main reason why people chose to remain economically active past the state pension age was because people felt they were not ready to stop working.

Table 2.2 Summary of active economic participation for 50+ year olds, comparison between 1995, 2005 and 2015

Age	Male Participation Rates (%)			Female Participation Rates (%)		
	1995	2005	2015	1995	2005	2015
50	88.7	87.9	90.2	76.7	77.1	80.7
55	79.2	82.7	85.0	61.8	69.9	75.4
60	60.5	66.5	70.8	35.8	40.1	58.9
65	18.0	28.3	34.5	10.9	14.6	21.9
70	8.8	9.9	17.7	4.0	6.5	11.6
75+	2.7	2.7	4.7	0.7	0.9	2.0
Total	72.2	70.7	70.6	53.5	56.1	59.3

Source: Labour Force Survey (ONS 2017)

Of those aged between 50 years and state pension age who were economically inactive during this period, some of the reasons cited were: 26% stated they were unable to continue working due to health reasons, 28% took early retirement and 16% were made redundant (either voluntary or non-voluntary).

2.4 Motivation to remain in the workforce

There are various reasons why a person may wish to remain in the workforce. For some it is not financially viable to leave employment e.g. living costs increasing or having children later in life (Popkin et al 2008). For others it can provide enhanced retirement security and reduce the period over which their pension needs to stretch (Johnson et al 2011). In research conducted by EU-OSHA (2016b), it was found that a third of 50 to 69 year old respondents continued to work in order to have sufficient income. Forty percent of respondents said they enjoy their work and do not want to retire (EU-OSHA 2016b). Silverstein (2008) suggested that those continuing in work may not be experiencing age declines to the same extent and said this could partially explain their 'selective retention'. Some older workers may wish to leave their job due to experiencing job insecurity. This insecurity could result in older workers feeling alienated or disadvantaged. They may

feel they are in competition with younger workers, thus less motivated and compliant, which could lead to more accidents (Bohle et al 2010).

Research has found that workers in physically demanding jobs are less likely to remain in the workforce (Johnson et al 2011). However with the increase in cognitively demanding roles and especially roles requiring interactions with unpleasant people, work may seem less appealing (Johnson et al 2011). Haslam et al (2013) also identified commuting to work and travel difficulties as influencing a worker's decision on how long to continue working. A literature review conducted by Kooji et al (2008) provided support for the idea that motivation to continue working is interrelated with the five different categories of age discussed in section 2.1.

Billet et al (2011a) argued that societal preference for favouring the younger recruit over the older person was a key barrier and felt the greatest risk for older workers is that they are only employable in lower skilled, lower salary jobs. For employees already in the workplace Griffiths (1997) found that in pressured or competitive times, it was older workers who would be offered an early retirement package to induce them to leave.

2.5   Incidence statistics

An indication of the health and safety status of older workers is the extent of occupational injuries among this group. In the UK, employers and other specified duty holders have a legal duty under RIDDOR to report certain workplace incidents to the relevant enforcing authority i.e. HSE, Local Authorities (LAs). Incidents are classified as fatal injuries, specified non-fatal injuries, occupational diseases, dangerous occurrences and gas incidents (HSE 2016b). The reporting enables data to be classified in to the following categories (HSE 2016c):

- injury severity, e.g. fatal, specified, over-7-day

- top-level industry, e.g. construction, manufacturing

- top-level 'kind' of accident, e.g. fall from height, handling injuries

- dangerous occurrence types and flammable gas incidents

Injury severity is further analysed by age, but type of injury is not. Table 2.3 shows provisional statistics for reported injuries for all workers in 2015/6 (HSE 2016d). The incidence rate of fatal injuries increases with age, with the over 65 year olds suffering the highest fatal incidence rate. The provisional data for 2015/16 is consistent with analysis conducted by Crawford et al (2010) where their review found older workers are more at risk of fatal accidents. In both the non-fatal specified injury category and the over 7-day injury category, the highest incidence rate was for 60 to 64 year olds. In the UK, statistics for illness caused or made worse by work, are only available for certain illnesses e.g. musculoskeletal, stress.

Table 2.3 Reported injuries for all employees in Great Britain by age and severity - 2015/2016 (provisional)

	Age	Number of injuries	Rate per 100,000
Fatal Injuries	All	144	-
	16-19	2	0.19
	20-24	6	0.21
	25-34	17	0.24
	35-44	25	0.36
	45-54	34	0.44
	55-59	14	0.48
	60-64	16	0.92
	65+	21	1.80
	Unknown	9	-
Non-fatal injuries	All	72,702	-
	16-19	1,564	149
	20-24	5,186	193
	25-34	11,665	186
	35-44	11,379	194
	45-54	14,754	234
	55-59	6,351	271
	60-64	3,834	290
	65+	1,433	209
	Unknown	16,525	-

Source: (HSE 2016d)

In terms of understanding injury and illness, comparisons between the UK and other countries may be problematic. While agencies collect data, injury definitions may vary and they do not appear to break down data fully by age. For instance there is no standard procedure for recording all accidents in Germany. The Federal Institute for Occupational Safety and Health (BAuA) (2017) is filling this gap by compiling overall annual accident statistics. However, the results may include overlaps and duplications and there are no specific data on age. In the United States, the highest risk age group for fatalities is over 65 year olds and for non-fatal injuries it is the 45 to 54 year age group, followed closely by the 55 to 64 year old age group (Bureau of Labor 2016). The Bureau of Labor does publicly provide data analysis of injury type by age, however some of their injury categories are different to those used in the UK e.g. falls, overexertion. Reviewing the United States statistics, in 2014 the leading cause of non-fatal injury to the 50 to 70 year age group, was falls followed by overexertion.

Research has shown that older workers have longer recovery times when injured (Crawford et al 2010b, Ross 2010). However with good employer support, return to work by the older worker should not be a problem (Crawford et al 2010b). Therefore in order to maintain a healthy productive ageing workforce it is important that health and safety standards are scrutinized (Ross 2010, Johnson et al 2011).

2.6   Age related capability changes

As individuals age, they experience progressive age related changes in capabilities: physical, sensory or psychological. Older people can also suffer from specific age related health problems.

2.6.1 Physical

Studies have identified that body composition tends to change with age with increased weight and reduction in height, which can result in a reduction in flexibility and mobility (Crawford et al 2010, Schwatka et al 2012). In research conducted by Masson et al (2016), looking at the adult working population in the UK (18 to 64 years of age), they reported that over 60% were

overweight/obese. Large motor movements i.e. bending, climbing, walking and also smaller motor movements i.e. grasping, turning, twisting are particularly susceptible to age related changes (Kowalski-Trakofler et al 2005). Strength can also decline with age (Kowalski-Trakofler et al 2005). It is believed strength peaks around 25 to 30 years old, by age 50 it may have dropped to 85% of lifetime peak capability and by age 65 may have decreased to 75% (Kowalski-Trakofler et al 2005). Decline in balance and posture can start to manifest itself above the age of 50 years with increased risk of slips, trips and falls (Silverstein 2008). By the age of 65 years, aerobic capacity could be 70% of that when the person was 25 years old. The body may also become less sensitive to thermal stimuli i.e. heat or cold (Kowalski-Trakofler et al 2005). However Crawford et al (2010a) conclude that age has no direct effect on tolerance to heat, but believe it is the individual's health and fitness that determines this. An age related decline has also been noted in tactile receptors located in various parts of the body. Decline of these receptors may inhibit the ability of detecting tactile cues related to simple tasks e.g. pressing a button (Kowalski-Trakofler et al 2005).   The condition of skin can also suffer with age as a consequence of previous damage e.g. sun exposure. Age related cellular changes can also reduce the skin's protection ability as a barrier and may leave some susceptible to dermatological disorders e.g. dermatitis, ulcers (Walker 2014, WHO 2015c).

2.6.2 Sensory

Vision changes with age, with the most obvious alteration being presbyopia, a reduced ability to focus at close range (Nylen et al 2014). The field of vision can also reduce with age with a loss of movement awareness at the peripheral visual field (Nylen et al 2014). Other potential declines are depth perception and loss of colour and contrast sensitivity (Kowalski-Trakofler et al 2005, Silverstein 2008). It has also been noted that people over 55 years old require increased lighting than those under 40 years old and they may also be more susceptible to glare (Kowalski-Trakofler et al 2005, Boyce 2008). With age people may also experience other eye conditions e.g. dry eye,

cataracts, age related macular degeneration, glaucoma, diabetic retinopathy (Nylen et al 2014).

Age is also known to be a risk factor for hearing loss, which at the age of 60 years could be as much as 25 dB and by 70 years 35 dB loss; the loss is less pronounced in women (Perry 2010, Farrow and Reynolds 2012). A loss of high frequency tones, difficulty in understanding distorted speech and possible sensitivity to loud noise has also been noted (Kowalski-Trakofler et al 2005).

2.6.3 Psychological

Researchers have noted reductions in reaction time and cognitive processing as individuals age, but there is no consensus about the age at which cognitive decline begins. Cognitive ageing can vary significantly between individuals, with some cognitive aspects believed to decline in adults in their 20s and 30s (Salthouse 2009). Morgan (2004) suggests that older people "avoid errors by sacrificing speed for accuracy", however when performance speed is required older people are disadvantaged. Researchers discuss the concept of cognitive reserve and believe that education, intelligence, lifestyle and occupational level help retain mental abilities, with evidence suggesting that use/practice can mitigate the effects of ageing (Morgan 2004, Whalley et al 2004, Stern 2012). Psychologists distinguish between memory processing functions, with 'fluid' functions requiring immediate processing and 'crystallized' functions requiring processing based on previous knowledge and it is the latter which is preserved with age (Silverstein 2008).

Research conducted by Gringart et al (2005) found that older workers were less adaptable and set in their ways, thus less able to learn new skills. However HSE (2016e) suggest that older workers can learn new skills provided they are allocated sufficient time to learn. The World Health Organisation (WHO 2015c) suggest that although there may be a slowing of information processing and reduced ability to multitask, the older person's experience can compensate for this. They are able to understand situations and then focus on specific tasks. An example of this happened on 15th

January 2009 (Shiner 2009, Fraher 2011) when Captain Sullenberger III (then aged 57 years old) landed his aircraft on the Hudson river following a loss of thrust in both engines caused by multiple bird strikes. Captain Sullenberger said:

> *"Everything I had done in my career had in some way been a preparation for that moment."*

As part of the ageing process changes may also occur in the 'internal biological clock', which can affect circadian rhythms, hormone levels, body temperature and can disrupt sleep causing fatigue (Coombs 2015).

2.6.4 Specific health complaints

Older people can suffer from specific age related health problems e.g. degenerative joint disease, cardiovascular disease, osteoporosis. It has been noted that arthritis (joint inflammation) can significantly increase in over 45 year olds. Differences exist between men and women, with women as they age being more susceptible to certain conditions, such as arthritis and osteoporosis (Kowalski-Trakofler et al 2005). Changes to weight and body composition may also predispose some individuals to diabetes and hypertension (Schwatka et al, 2012). As people age it is also more likely that they may experience more than one chronic condition (multimorbidity). These conditions may negatively impact on each other, or treatments or medications may adversely affect another condition (WHO 2015c).

Dementia "is one of the major health challenges of our time" (WHO 2015c), caused by damage to nerve cells in the brain. It predominantly affects older people, impairing cognitive brain functions (memory, perception, language). It is believed that 47 million people worldwide were affected by Dementia in 2015 and it is estimated that the numbers living with dementia will rise significantly over the next few years (WHO 2015d). There are many types of dementia, but the most common form is Alzheimer's disease which accounts for 60% to 80% of cases (Fargo and Bleiler 2014). Early symptoms of Alzheimer's is a difficulty with memory e.g. remembering names, recent conversations, new information or events. Later stages can include

confusion, behavioural changes, impaired communication, with the final stages seeing the person bedbound requiring total care. Ultimately, Alzheimer's disease is fatal.

2.7 Management and organisational factors

The way work is organised has a significant bearing on older workers. Haslam et al (2013) found that promoting an age positive culture helped organisations manage their age diversity, which in turn helped maintain knowledge and skills within the organisation. However if employers do not encourage their older workers to remain in the workforce they will not only lose knowledge, but also face staff shortages (Johnson et al 2011).

2.7.1 Workplace assessments and controls

The ageing process is well understood, however there is a tendency to over-generalise about the needs of older workers. There is little consideration regarding the variation between different sectors, or whether a successful intervention in one sector would be sufficient in another (Buckle 2016). Buckle (2016) noted that only limited research had been conducted in the manufacturing sector and in the construction sector there was guidance but this has not been evaluated.

Streb et al (2008) stated "older workers seem to be sufficiently flexible and willing to be as productive as their relatively younger colleagues", however this will only be achieved by organisations providing a safe environment and implementing relevant measures. The requirement for age sensitive risk assessments should take in to account the large differences in functional capabilities and should be a continuous and dynamic process (EU-OSHA 2012b). Appropriate risk assessment, targeting older workers should benefit all. It is important that those conducting the workplace assessments have undergone training to understand the specific needs of older workers (EU-OSHA 2009).

Work ability was first defined in the early 1980s in Finland in relation to an individual's ability to meet the physical, social and mental demands of a

particular job (Ilmarinen et al 2005). Ageing is a continuous process and work ability is only maintained when appropriate interventions are implemented (Kowalski-Trakofler et al 2005, Bohle et al 2010). Schwerha (2010) argued that an age-diverse workforce should be promoted using an ergonomics approach, which should consider ageing changes, together with the work requirements, work environment and occupational health. Hierarchical controls should be followed i.e. engineering controls which eliminate or reduce the hazard, followed by administrative controls of policies and practices, such as job rotation and training (Boyce 2008). Products and environments should be of 'universal design' meeting the requirements of all age groups, thus not only creating an age-friendly workplace, but also preventing or slowing potential work related declines in younger workers as they age (Silverstein 2008). However Streb et al (2008) raised concerns that many workplaces were only being designed for physically capable younger workers. Buckle (2016) also highlighted that risk assessments for over 65 year olds in physical work needed to be improved as the guidance was based on studies of younger workers.

Employers who do not assess and support older workers may see various impacts such as increased injuries and loss of productivity and quality (Silverstein 2008). It is important that job demands, work environments and capability requirements are assessed, so that employers have an understanding of which tasks have no age issues and those that could become challenging (Ziekemeyer 2005). Older workers acknowledge their work environments could be better designed, however they do not feel empowered to make alterations (Haslam et al 2013).

Knauth et al (2005) recommended that work analysis should be undertaken that covers the entire work system. One particular area the report studied was working time, whether it is offering enhanced breaks, involving shift work or allowing flexible working practices. Haslam et al (2013) found that offering flexible working practices may enable older workers to continue working. There is evidence that when assessing older workers one factor to take into

account is the work domain and how familiar the worker is with the environment and tasks. If they were asked to work on an unfamiliar task or environment for example there could be implications should a safety critical event occur (Boyce 2008, Beers and Butler 2012). Johnson et al (2011) argued that employers should consider allowing workers as they age to adjust their assignments and possibly change to a job better aligned to their changing capabilities.

Streb and Gellert (2011) conducted research in the automotive industry to examine the assumption of negative age performance within teams. Conducting an extensive longitudinal study they found that team performance increased with a growing average team age. A positive measure being adopted was job rotation within the teams. A negative finding which could decrease performance was when the production line work was too standardized as older workers found this work less bearable. Streb and Gellert (2011) noted that the team leader played a crucial role assessing their team members for any potential work constraints and adjusted work requirements. Should a worker's condition be chronic a company doctor assessed the constraints, work requirements and any possible adjustments and if there is a discrepancy, workers may be relocated to another team. Due to previous work to build trust within the organisation, workers were willing to discuss and cooperate with their superiors to find the best solution for themselves, the team and the organisation. Figure 2.1 summarises Streb and Gellert's (2011) research.

One tool to assess a person's ability to work is the Work Ability Index (Figure 2.2). A questionnaire is used by employers to assess a worker's current state and determine how they may be in the future, with respect to their work demands, health and resources (Ilmarinen et al, 2005). Costa et al (2011) regarded this a useful tool that could be used throughout a person's working life. When reviewing an individual's work ability it is also important to capture any other information that could have consequences for the person's safety e.g. any prescribed drugs which could have side effects (Popkin et al 2008).

Research also shows other work ability tools being used e.g. DaimlerChrysler and Volkswagen use a tool called 'matching' which assesses an individual's capabilities and matches them with the most suitable work (Streb et al 2008).
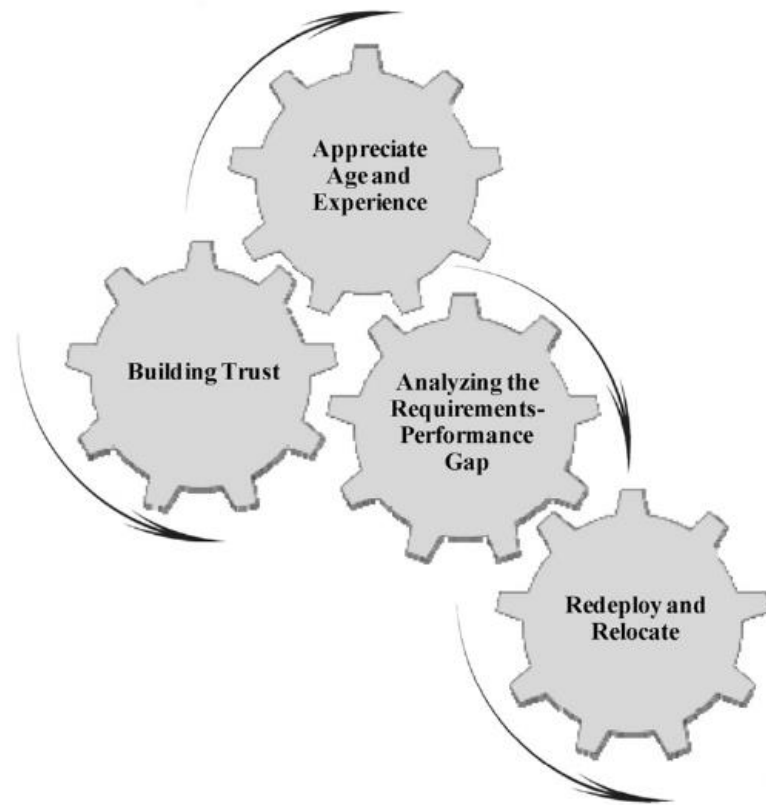
Figure 2.1 Ageing team management process (Streb and Gellert 2011)
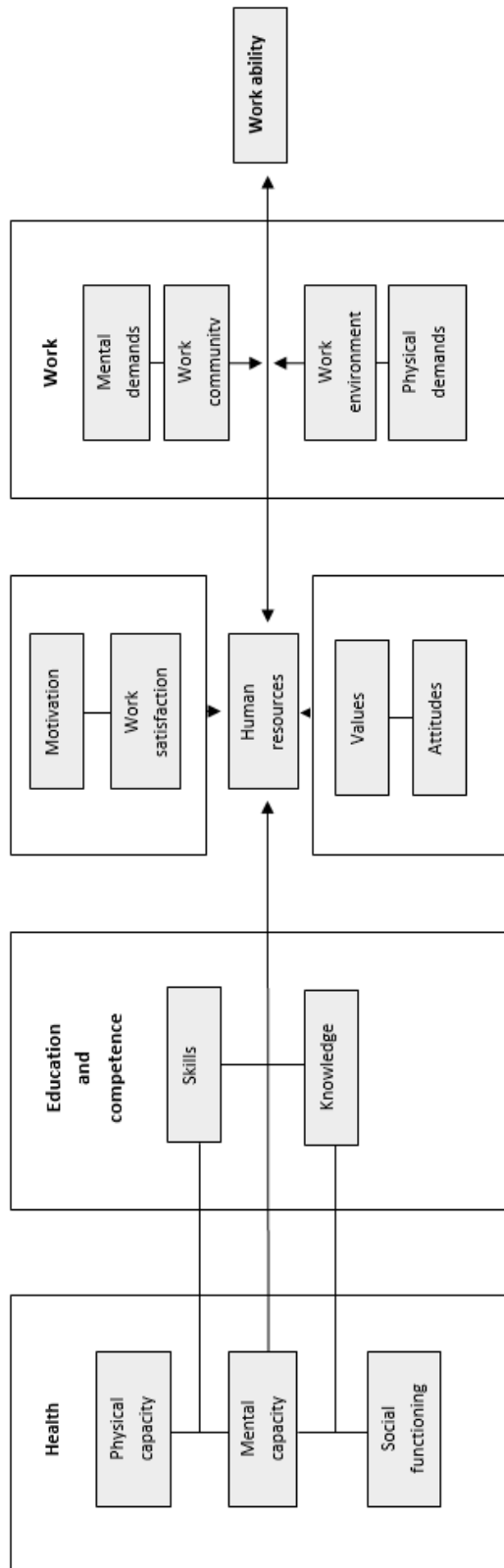
**Figure 2.2 Concept of work ability, emphasising that individual work ability is a
process of human resource in relation to work (Source Ilmarinen 2001)**

2.7.2 Training and technology

Researchers have found that age is not the only factor when reviewing individual decline of knowledge and skills, although Kooji et al (2008) said that with increasing age there is an expectation that skill obsolescence will increase. Yeatts et al (2000) argued that long job tenure may contribute to declining or stagnation of knowledge and skills. It was recognised that some long-tenured workers may fail to understand how to apply new knowledge to improve performance, or may be reluctant to admit their abilities have stagnated. Effective training will increase the likelihood that older workers will re-establish an acceptable person–job fit following work changes (Yeatts et al 2000). Research also suggests that older workers' learning is more beneficial when conducted at an appropriate pace in a learning environment with age peers (Yeatts et al 2000, HSE 2014e). The training methods can take account of potential changing cognitive processing speeds and avoid distractions etc (Silverstein 2008). Johnson et al (2011) commented that with the increase in jobs requiring cognitive skills, workers will be required to constantly update their knowledge, but believed this could disadvantage older workers whose employers are reluctant to invest in training as they will be unable to recoup the costs. There is also a requirement for effective training for both older workers and their managers/supervisors regarding age related factors (Ilmarinen 2006). Schwerha (2010) suggested training opportunities could include general age awareness training or specific modules related to age related changes.

2.7.3 Knowledge transfer

Older workers have a key role to play in knowledge transfer. Most organisations today recognise the importance of knowledge and look for ways to capture and spread knowledge and ideas (Wenger and Snyder 2000).   One practical method applied is 'mentoring' which can be used to both train newer members, but also as part of succession planning, passing on knowledge to a successor (Streb et al 2008). Pollack (2012) noted however "one of the principal limitations of such individual transfer of tacit

knowledge is the potential for variability in the quality of transfer" and potential for personal bias.

2.7.4 Health promotion and surveillance

Granville and Evandrou (2010) discussed the importance of embedding effective health promotion into corporate strategies, although believed that health promotion programmes would be problematic for small and medium sized organisations and contractors. Naumanen (2006) said that health promotion means:

> "preventing, minimising and eliminating health hazards in the workplace, maintaining and promoting the employee's work ability and changing work practices, techniques and making the work environment a safer place".

In a study undertaken by Naumanen (2006), over 90% of respondents thought health promotion would lead to many benefits e.g. better health, good working ability and increased motivation. Although increasing age brings increased chance of deteriorating capabilities there are numerous factors that can influence and help minimise age related risks such as lifestyle, exercise and nutrition and individual workers can promote their own health by practising good health habits (Benjamin and Wilson 2005, Naumanen 2006). Potentially, older workers may spend more than half of their waking hours at work, so this would be a good place to implement health promotion initiatives (Walker 2014). It is also recognised that older workers see positive benefits of health checks and counselling (Crawford et al 2010b). However research conducted by Haslam et al (2013) suggested that contact with occupational health services rarely occurred and, when it did occur, it generally seemed to be reactive e.g. musculoskeletal disorders, sickness absence monitoring.

2.7.5 The impact of age related changes within the work environment

In research conducted by Okunribido and Wynn (2010), they highlighted that older workers, due to their reduced capabilities, may be more susceptible to musculoskeletal disorders e.g. problems with muscles, joints, ligaments,

nerves etc. Musculoskeletal issues represent a significant challenge for older workers and employers, often compounded by workers' longer exposure over their working career (Crawford et al 2010b). Studies have shown that workers between 40 to 60 years old are more susceptible to repetitive motion injuries (Boyce 2008). Due to women being more susceptible to certain conditions e.g. arthritis and osteoporosis, this could have more severe consequences for women who may be performing repetitive jobs such as assembly line work for example (Payne and Doyal 2010).

With decline in strength and joint mobility, employers need to be aware of potential muscle fatigue in older workers (Kowalski-Trakofler et al 2005). Potentially hazardous are tasks requiring high muscular force e.g. lifting, pushing, pulling and carrying (Kowalski-Trakofler et al 2005). Concerns have been raised regarding older workers' ability to complete work tasks and maintain performance if they are experiencing high levels of musculoskeletal symptoms (Kowalski-Trakofler et al 2005). Silverstein (2008) suggested that although older workers in general may work closer to their physical limits, they are probably not required to perform at full capacity for most jobs. Some findings suggest a link between age and decline in balance and posture leading to possible increased risk of slips, trips and falls, although precise patterns of this are unclear (Bentley and Haslam 1998, Silverstein 2008, Chang et al 2016), but employers should consider where problems could occur in different work environments.

Previous research suggested workers in physically demanding jobs such as construction, may face significant challenges due to both the physical demands of the job and the daily working environment, which can range from harsh weather, irregular hours, awkward positions, heavy lifting to handling vibrating equipment (Schwatka et al (2012). Eaves et al (2016) reported that older construction workers had a slightly higher prevalence of musculoskeletal symptoms and a higher incidence of knee problems. Their research noted that age and length of time working in a manual trade may contribute to increased risk of symptoms. Studies have also identified a

requirement for increased recovery time for older workers (Kiss and Mester 2005, Crawford et al 2010b). While older workers need to use caution in high-risk environments, it has been noted that some workers may benefit from their work activities and maintain better balance e.g. construction workers, fire-fighters (Crawford et al, 2010b). Many jobs that previously would have been physically too demanding for some older workers can now be supported by technology to alleviate the physical demands (HSE 2016e). There has been a decline in physically demanding jobs, therefore older workers may have improved employment prospects (Johnson et al 2011). However contemporary work has become increasingly sedentary, which represents a health risk and challenge for employers and workers (Boyce 2008, Kazi et al 2014).

Wherever work is conducted where lighting problems may be experienced e.g. at workstations or driving work tasks during darker hours, the visual element of the task should be assessed (Beers and Butler 2012, Boyce 2008). Vision changes can be managed with the correct interventions at both the individual and organisational level (Stuckey et al 2007, Crawford et al 2010b). For example with potential changes in the periphery of the visual field reducing movement awareness, employers should be assessing the design and placement of vehicle signage (Nylen et al 2014). Employers should also be evaluating the readability of instructions and signage to avoid workers having to remove safety glasses in order to exchange them for reading glasses (Thompson 2011).

Age induced hearing loss will be a factor for those communicating in noisy environments, those with the requirement to hear accurate verbal instructions as well as other auditory systems (Perry 2010). We are also witnessing a rise in customer service type jobs (Jennings et al 2010). Jennings et al (2010) suggested that older workers with hearing loss may find the communication demands lead to mental exhaustion which in turn could pose a safety risk and may also contribute to workers feeling isolated. Farrow and Reynolds (2012) noted that hearing loss was associated with same level falls.

Although they did note a lack of detailed data regarding the over 60 age worker group.

Where cognitive decline occurs, individuals may compensate with their increased experience and job knowledge (Crawford et al 2010a, HSE 2016e). Farrow and Reynolds (2012) found that stimulating work may afford some protection from cognitive decline. However Choi (2008) noted that older construction workers were less likely to respond quickly to distress conditions as work situations changed. This could potentially have both positive and negative consequences for older workers. It could result in older workers remaining calm while coping with an array of stressors, alternatively it could expose older workers to hazards that would have previously elicited fear. Duke et al (2010) conducted research on age-related safety in professional heavy vehicle drivers and found that reaction times could be impaired by fatigue, a leading contributor to collisions. This research observed increased rates of accidents in drivers under 27 years of age and those over 63 years of age, with increased risk during night-time driving.

Stress is widely acknowledged as a mental health concern. A feature in many jobs is the requirement to work faster for longer and time pressures to meet tighter deadlines (Johnson et al 2011). It has been noted that time constraints may diminish the benefit of older workers' experience (Volkoff and Pueyo 2005) and may increase health problems, as stress has been associated with a decrease in immune function (Naumanen 2006, Walker 2014). Research by Herrero et al (2012) found that women between 45 and 54 years old have a higher likelihood of suffering stress. Work scheduling can also have an impact on health of older workers (Volkoff et al 2010). Time demands need to be reviewed with regard to whether they are 'intensive' or 'extensive' e.g. amount of work, which can be further exacerbated by regular overtime work (Volkoff et al 2010).

Research examining the effects of shift work has found that increasing intolerance to night work is noticed between the ages of 40 and 50 years (Costa 2005, Costa and Sartori 2007, Bohle et al 2010). This work pattern

interferes with circadian rhythms, causing fatigue (in this case sleep related deprivation), leading to errors and accidents (Williamson et al 2011). Quality and duration of sleep are important factors in healthy ageing (Walker 2014). Following research, Mikko (1996) recommended that night work should be voluntary after 40 years of age. Mikko et al (2006) reported that a rapidly forward rotating shift system (a consecutive morning, evening and night shift followed by two free days) could help older workers by increasing alertness, improving their ability to sleep and well-being.

Streb et al (2008) indicated that organisations may experience significant cost burdens due to absenteeism and the potential increased numbers of older workers who may need adjustments or have constraints placed on their performance. Kenny et al (2008) found that many studies evaluating age and work capabilities have encountered the 'healthy worker effect', those in better health have continued to work, while those with poorer health etc have either left the workplace or transferred to less demanding jobs.

2.8 External factors

2.8.1 Legislation

When reviewing health and safety and an ageing workforce it is relevant to understand what legislation exists to protect older workers. This commentary is confined to the UK, where this thesis study was based.

Pensions Act 2014

In the UK, the Pensions Bill 2013/14, introduced by the Department of Work and Pensions (DWP 2017), received royal assent in May 2014. The Act currently sets out gradual increases in pensionable age for both men and women e.g. anyone born between 6th October 1954 and 5th April 1960 will currently reach their state pension age on their 66th birthday, anyone born between 6th March 1961 and 5th April 1977 will currently reach state pension age on their 67 birthday. A person born after 5th April 1977 will reach their

pension age on their 68th birthday (DWP 2017). The Act also contains details for those wishing to postpone their state pension entitlement, thereby benefitting from increments for the deferred period (Pensions Act 2014).

<u>Equality Act 2010</u>

This Act provides one single Act and protects employees from workplace discrimination. It lists 'protected characteristics', age being one of them, disability another. "Age discrimination is unfairly treating people differently because of their age" (Equality Act 2010). However guidance states that differential age treatment can be positive e.g. bus passes, flu jabs etc and these can continue. Direct age discrimination involves someone being treated unfairly in comparison with another age group. Indirect discrimination is where a rule or policy applies to all workers, but this could disadvantage a particular group of people. Lawful discrimination is permitted in limited circumstances.   It is not unlawful to permit age discrimination where there is an objective justification e.g. stating a maximum age for recruitment due to training requirements.   Objective justification allows employers to directly discriminate against age providing it contributes to a legitimate aim and there is no reasonable alternative. A legitimate aim might include health and safety protection of older workers, or where the employer believes people need to be treated differently to achieve business needs and efficiency.

The HSE (2014e) state that it can be justifiable to discriminate in respect to age if it is proportionate to achieve a legitimate aim e.g. changes to a workplace required to ensure older workers are safe and can remain in work. Age discrimination is also permitted where there is a genuine occupational requirement e.g. employing an actor to play someone young (ACAS 2014). However employers will need to provide evidence of their decision should the discrimination be challenged. If other legislation states that people are required to be treated differently because of their age, that discrimination will be deemed lawful. ACAS (2014) believe that employers tackling discrimination will help to retain and motivate workers.

The Equality Act classifies someone as disabled if they have "a physical or mental impairment that has a substantial and long term negative effect on their ability to do normal activities" (Equality Act 2010). Normal activities could be general work-related activities. Long term means 12 months or more. It also classes someone as disabled if they have a progressive condition that gets worse over time. "Employers must make reasonable adjustments to make sure disabled workers aren't seriously disadvantaged when doing their jobs" (Equality Act 2010).

Data Protection Act 1998

Should employers need to discuss changing capabilities with their older workers, it is important that the employer meets the requirements under this legislation relating to 'sensitive personal data'. Such data might include worker's physical or mental health or condition (Data Protection Act 1998). If the data subject gives explicit consent, their personal data may be disclosed to a third party. However anyone receiving this data i.e. occupational health, safety professionals, owes a duty of confidentiality.

HSE – vulnerable workers

The HSE define vulnerable workers as "those who are at risk of having their workplace entitlements denied and who lack the capacity or means to secure them" (HSE 2016e). The HSE (2016e) state that health and safety should not be used to justify discrimination. There are various categories of vulnerable worker, however only one of the categories will be discussed here i.e. age and older workers. The HSE state that older workers should be protected and by law employers should be conducting risk assessments. It should be recognised, however, that there are specific risks faced by older workers and these should be highlighted on the risk assessment – it is not a requirement to have a separate risk assessment for older workers (HSE 2016e). The HSE (2016e) offer guidance for employers and state that older workers bring a wealth of skills and experience to the workplace "so looking after their health and safety makes good business sense".

2.8.2 Work – home balance

An increasing number of older workers may find themselves facing a 'double burden', the role of carer for older relatives or grandchildren, as well as paid work (Payne and Doyal 2010). Chatzitheochari and Arber (2009) noted that sleep depreciation may have a detrimental impact on health and safety. Popular phrases such as 'time poverty' and 'time famine' have been used to describe a decrease in time available for work and home commitments (Chatzitheochari and Arber 2009). While family responsibilities are recognised as an issue for younger workers, employers may not be aware of this additional strain on older workers. Martin-Fernandez et al (2009) carried out research regarding work-family conflict and found there was a relationship between work-family conflict and accidents. Haslam et al (2013) found that flexible working practices e.g. flexible hours, working from home, working part-time etc were sought by those with caring responsibilities.

2.9 Summary

There is no consistent classification of 'ageing' or 'older' worker, however the prevalent definition is based on chronological age, with many researchers using 50 as a threshold.

A review of the literature highlights there are both positive and negative perceptions of older workers. A positive perception is that older workers have a wealth of knowledge and skills to bring to the workplace. However, negative perceptions regarding natural ageing and negative stereotypes about older workers' abilities and performance can de-motivate them, resulting in them leaving the workforce.

Reviewing statistics for the last three years, the highest incidence rate of occupational fatalities was the over 65 age group, with the highest specified non-fatal injury incidence rate being the 60 to 64 age group. There is also a difference in sickness absence, which typically sees younger workers absent more, but older workers once absent away from work for longer periods.

As individuals age, they experience progressive age related changes in capabilities: physical, sensory and/or psychological. They may also suffer from specific age related health problems. However, capability changes widen with age, therefore chronological age is not necessarily a reliable indicator of functional ability.

With the removal of a default retirement age, the state pension age increasing and the projected reduction in workforce available, employers need to seek to retain older workers and provide flexible and relevant interventions that support work ability. When compared with their younger colleagues, older workers are generally just as adaptable and productive, however, organisations need to provide a safe environment and implement relevant measures to mitigate changes in capability that may impact on older workers' ability to perform their role. There is no 'one size fits all' strategy as different work sectors face different challenges.

Figure 2.3 shows a summary of possible age related capability changes and aspects of the workplace that may impact on older workers.
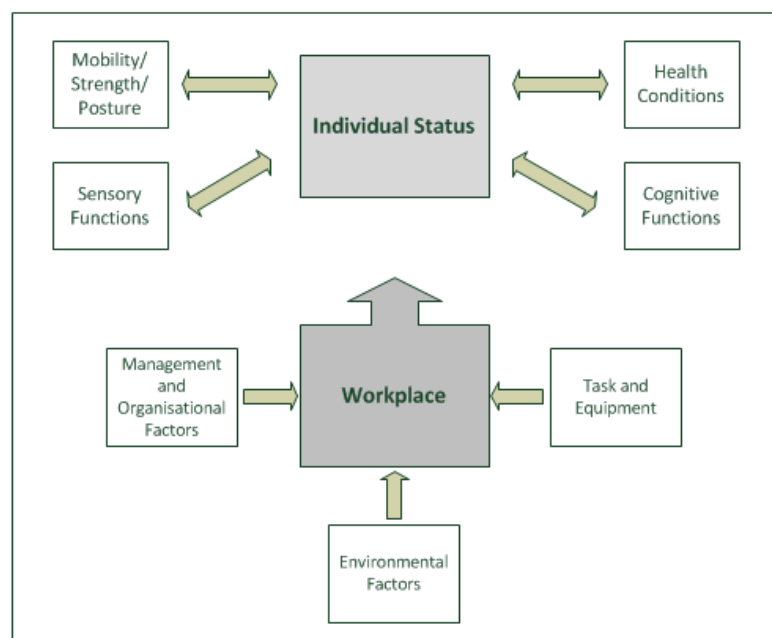
Figure 2.3 Summary of age related changes and impact of workplace factors

2.10   Notable gaps in the literature

This literature review has highlighted policy changes implemented by external bodies and how these may impact on both employers and older workers. The literature indicates how people change with age and how health and safety initiatives can reduce risk to older workers, helping them remain productive in the workplace for longer. Missing, however, is research evaluation of the impact and effectiveness of policy changes and the employers' responses. There is also a lack of evidence in the literature on, the success or otherwise, of physical workplace changes employers may have implemented to support older workers. In addition, the existing research does not identify, or evaluate, the extent to which older workers are reporting issues, nor the extent to which they are being engaged by their employers. In terms of understanding worker injury and illness by age, it would appear few agencies collect these data. Such data would be beneficial in comprehending the main safety and health issues affecting older workers and in assessing the impact of interventions.

Chapter 3　　Research methodology

This research used qualitative approaches. This chapter will explain why qualitative approaches were chosen and how the research was conducted. It will also discuss validity, reliability and ethical considerations.

3.1　Research framework

"All enquiry is concerned with contributing to knowledge" (Robson, 2004). In order to make decisions about the methods to be used it is important to understand something about the research questions to be answered. When conducting research, components of a design framework can be used.

The following elements have been extracted from a research design framework proposed by Robson (2004) (Figure 3.1):

- *Purpose* – what is the study trying to achieve?
- *Research questions* – what does the study need to answer to achieve the purpose, taking into account resources available?
- *Methods* – what techniques of data collection will be used? How will data be analysed?
- *Sampling strategy* – where will data come from?

This research used an iterative question orientated approach, to explore a spectrum of responses within questions.

3.2　Research methods: qualitative versus quantitative

Bryman (2012) describes common distinctions between qualitative and quantitative research methods, describing them as quite separate and distinct e.g. capturing numbers versus words. However others (Saunders et al 2003, Green and Thorogood 2010) see this distinction as problematic. Green and Thorogood (2010) have suggested that the aim of a study (what, how, why) should be the driver, rather than what or how data are collected. Hennink et al (2011) describe qualitative research being useful for exploring

'why' and 'how', Robson (2004) described it as providing 'rich', 'full' and 'real' information and Bryman (2012) stated it was useful for understanding "through the eyes of people". Table 3.1 summarises some of the distinctions suggested in text books and shows some overlaps in reality.
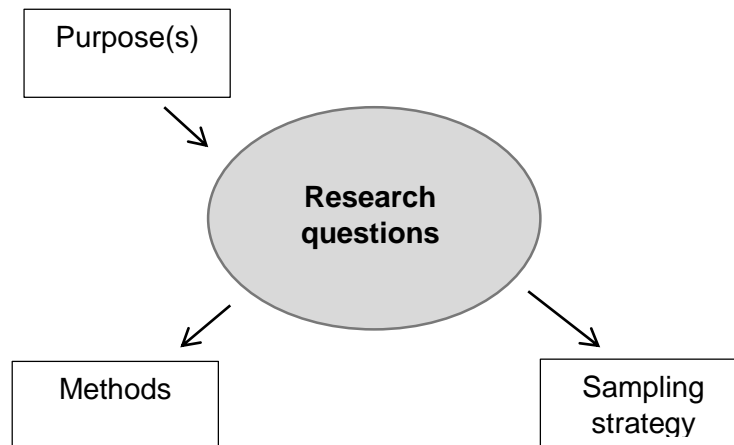
Figure 3.1 Elements of a research design framework (Source Robson 2004)

The following criticisms have been levelled at qualitative methods (Gray 2011, Bryman 2012):

- Too subjective – relies too much on researchers' views and the significance they place on some aspects of the data
- Difficult to replicate
- Problem of generalisation – findings may be restricted if low numbers of participants are engaged, therefore their views may not be representative in all settings
- Lack of transparency – there may be difficulty understanding how researcher arrived at their conclusions

Table 3.1 Summary of common distinctions between qualitative and quantitative research and the overlap in reality

Qualitative research	Quantitative research	The reality
Collects words (perceptions/beliefs/meanings) - interpretative	Collects numerical data - statistical	Qualitative can use statistics to count frequency. Quantitative can use scales to measure beliefs.
Subjective	Objective	Both require subjective judgement regarding questions, tests to perform. Both seek to avoid distortion.
Data collection - small sample size by interviews, observation, focus groups	Data collection - large population size by surveys	For both, data collection can be large or small depending on resources and aims.
Inductive	Deductive	Both can test and develop theory.
Trustworthiness (extent of trust and confidence in the study and its findings)	Reliability/Validity	Important for both approaches to demonstrate quality, validity, reliability and replication.

Source: Saunders et al 2003, Robson 2004, Green and Thorogood 2010, Hennink et al 2011, Bryman 2012

The following criticisms are made of quantitative studies (Gray 2011, Bryman 2012):

- Artificial sense of accuracy when questions may be subjective/arbitrarily defined by researcher
- Reliance on instruments/procedures that may inhibit relationship between researcher and participants' lives/views. Richer data may not be captured

3.3   Validity, reliability and ethics

Validity and reliability are important in establishing research quality. Validity refers to the degree that what was being measured was what was purported to be measured (Robson 2004). When discussing validity the researcher should check that the study provides credible conclusions. That the questions being asked provide the response expected (Bell 2007, Bryman 2012). Piloting the chosen data capture method will also test whether all data are usable (Bell 2007).

Reliability is the extent to which, under similar circumstances, the research methods would produce similar results (Bell 2007, Bryman 2012). Although some argue (Saunders et al 2003, Bryman 2012) that it may be difficult in qualitative research to replicate studies, as the responses reflect opinion at that point in time. When seeking opinion, researchers must endeavour to ensure they have not influenced the views of the participant. A process of reflexivity should be adopted where the researcher reflects on their subjectivity and considers any potential influence during data capture (Hennink et al 2011, Bryman 2012). Bryman (2012) discusses trustworthiness. This focuses on credibility (does observation and theory match); transferability (extent that findings are generalizable); dependability (can study be replicated); and confirmability (has the researcher been objective, avoiding personal opinion to sway findings).

There are various ways to help maintain reliability. Questions should be piloted and amended where necessary to avoid ambiguity. This will reduce opportunities to impart any bias into discussions. It is always good practice for an independent researcher to assess a sample of data. Triangulation can also be used to assess reliability. This can be used as a way of cross-referencing findings, by using different data capturing methods to check findings have not been misunderstood (Bryman 2012), or interviewing different participants from different roles/organisations etc.

Although validity and reliability have distinct meanings in research, if the results are not reliable, they cannot be valid.

Ethics is the standards and codes of conduct that must be adhered too when conducting research (Robson 2004). Due to the nature of qualitative research it can be necessary to establish rapport with participants. This will help build trust to enable participants to discuss their perceptions/beliefs and is especially important when it involves personal information (Bell 2007, Hennink et al 2011, Bryman 2012). This research must conform to the requirements of Loughborough University Ethical Advisory Committee and information anonymised and stored in accordance with the Data Protection Act (1998).

3.4   Methods to capture data

A summary of different strategies to capture data is discussed below (Table 3.2). The nature of the information being sought will determine the most appropriate method.

3.5   Methods used in this research

A summary of the data collection method and analysis for each study is shown in Table 3.3.

Prior to the commencement of the first study, two alternative methods of data capture were trialled, to determine what results different methods would yield. The same questions were used for both an online questionnaire and for face to face semi-structured interviews. The trial online questionnaire was completed by n=68 respondents. The interview trial provided more in-depth 'richer' data and enabled probing of responses. It also allowed verification of respondent suitability. Therefore interviewing was the favoured method for this research.

During this research, controls to help manage reliability and validity were undertaken. In the interests of validity, all study methods were piloted and discussed with peer researchers. A sample of data was assessed by an independent researcher. To help transferability of findings, participants were used from different organisations and different occupational hierarchal status.

One study required an overview of worker opinion with the ability to probe responses, focus groups were the chosen method (see Table 3.4 for summary of focus groups).

Table 3.2   Summary of data capture methods

Method	Description
Case study	Intensive focus on a single sample or issue/person/organisation. Low number of cases for comparison purposes (Robson 2004, Gray 2011, Bryman 2012)
Content/document analysis	Systematic method used to analyse content of documents etc that can either be printed or visual. Looking for predetermined categories or frequencies of occurrence (Robson 2004, Gray 2011, Bryman 2012)
Diary	Participants complete diaries as per researchers' criteria e.g. showing times/sequence of events (Robson 2004)
Ethnography	Researcher immerses themselves in real-life environment for period of time, observing, listening and asking questions (Bryman 2012)
Focus group	A group interview of several participants. Importance of interaction/discussions on a selected numbers of topics (Bryman 2012)
Interview	Researcher elicits information from participant (particularly regarding attitudes/beliefs/values). Different styles can be adopted from quite structured to flexible (Bryman 2012)
Observation	Behaviour is observed and interpreted (Saunders et al 2003, Bryman 2012)
Questionnaire	Predominantly self-completion questions, can be either hard-copy or online. Majority of questions offer a selection of predetermined choices (Bryman 2012)

Table 3.3   Summary of data collection method and analysis for each study

Study	Purpose	Data collection method	Analysis	Chapter
Study 1	Scoping study to understand UK employers' perception of an ageing workforce and what age management strategies their organisation had implemented.	41 senior personnel Semi-structured interviews	Thematic analysis (NVIVO 10) Excel	Chapter 4
Study 2	To explore older workers' perception of an ageing workforce and their views on the barriers identified by employers, related to implementing age management strategies.	10 focus groups of older worker participants	Thematic analysis (NVIVO 10)	Chapter 5
Study 3	To explore older worker's individual health and capabilities, their perceived future in the workplace and the support they believe their organisation provides.	50 older workers Semi-structured interviews	Thematic analysis (NVIVO 10) Excel	Chapter 6
Study 4	A validation study exploring whether the list of good practice health and safety measures compiled from the above study findings and literature, are considered to be beneficial and achievable for organisations.	4 key participants from 4 organisations Semi-structured interviews	Thematic analysis (NVIVO 10)	Chapter 7

Table 3.4 Summary of focus groups

FOCUS GROUPS
Good for interactive group discussions. Ideally up to 8 participants who respond to a specific set of topics. Group composition needs to be carefully considered to enable productive discussion. Willingness to contribute may be influenced by participants sharing similar status, experiences, being acquainted.
Strengths of focus group method Participants may feel more comfortable as it replicates social interaction Broad range of views captured Can uncover unique perspectives Participants can debate or may challenge each other (interactive style – see Figure 3.2 below) Uncover large volumes of information in a short duration
Weaknesses of focus group method Can be difficult to set up (logistical challenge) Difficulty distinguishing between participants on recordings Moderator requires specific skills to keep discussions flowing, to probe, or manage group dynamics No personal questions can be asked due to confidentially issues Fewer issues covered May reflect minority view Data analysis more complex

Source: Langford and McDonagh 2003, Loughborough University 2004, Bell 2007, Hennink et al 2011

Hennink et al (2011) described two styles of group moderation (see Figure 3.2). All the focus groups in this research followed the interactive group discussion style.

All other studies required individual input, with some questions requiring personal health information and potential employment worries. Because these studies required flexibility to discuss responses, semi-structured interviews were the chosen method of data capture. Some questions used a predetermined scale (Likert) to gauge participants' opinion related to a particular topic statement (Bell 2007). Informed consent was sought before

commencement of each study in accordance with the requirements of
Loughborough University Ethical Advisory Committee (a standard form was
used for all four studies – see Appendix A). Numbers of interviews were
conducted to ensure saturation. Triangulation was also used, collecting data
over different time periods from different sources, to help balance out any
potential weaknesses in each data collection (Gray 2011). Table 3.5 shows
a summary of the interview method.
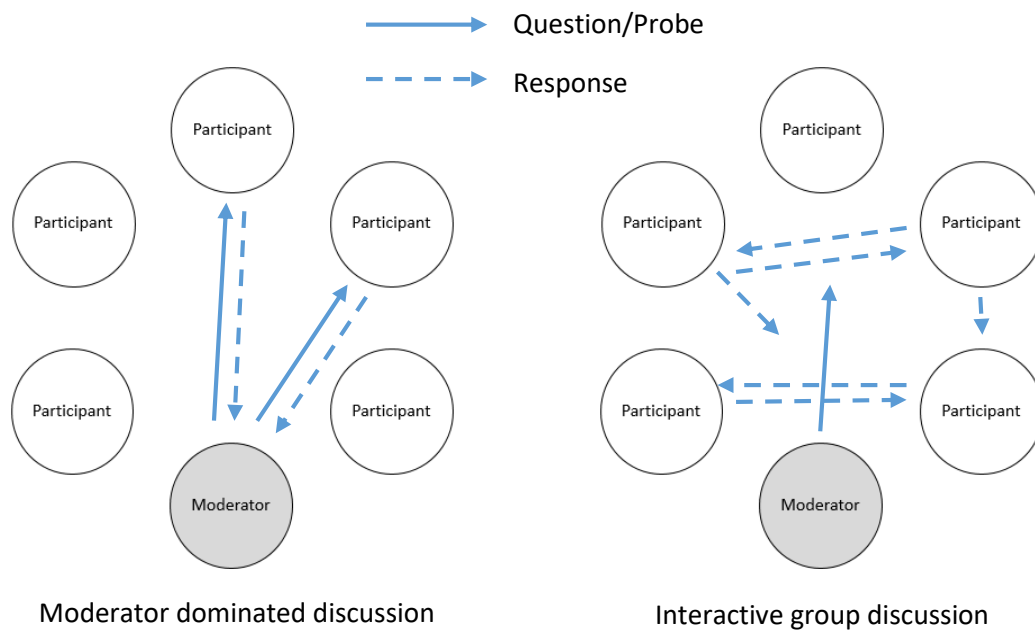
Figure 3.2   Styles of focus group moderation (adapted from Hennink et al 2011)

Validation can be used to gauge reactions to feedback on findings. The
process can take various forms e.g. feedback to participant, feedback to a
group of people or organisation. The feedback can be related to findings
from the analysis of interviews or can be a combination of studies and
literature (Bryman 2012). During this research validation feedback was used.

Table 3.5   Summary of interview method

INTERVIEWS
Interviews used to gain in-depth information on personal experience, feelings, and life stories. Can be conducted face to face or by telephone. Some evidence suggests that telephone interviews provide inferior data. Semi-structured interviews can cover a range of questions following an interview schedule.
Strengths of interview method Flexibility to vary question sequence and omit some questions in particular interviews. Researcher can probe responses gaining more in-depth information. Useful for sensitive topics. Participant may discuss information that was not included on interview schedule.
Weaknesses of interview method Researcher needs skills to establish rapport and be flexible with interview schedule. Large amount of data/transcription. Time consuming. Characteristics of interviewer may have impact on participants' replies e.g. gender, age, ethnicity, experience.

Source: Saunders et al 2003, Hennink et al 2011, Bryman 2012

3.6   Data analysis

Data were analysed using thematic analysis. As the interviews were coded, themes were identified in response to the frequency of answers to key questions (thematic analysis). However Bryman (2012) has suggested that this approach could be criticised as being nothing more than 'anecdotal' as there is no distinctive approach. Deductive codes were used as a logical starting point (the topics from the interview guide). Inductive coding developed from the data as issues were raised and repeated.

Thematic analysis for this research involved the following:

1. All transcriptions were imported into computer-assisted qualitative data analysis software QSR NVIVO (version 10) for coding.

2. Deductive coding was initially used based on issues identified in the literature and then the interviews/focus groups.

3. Coding was iterative, as new codes were identified previous data and codes were reviewed again.

4. Frequency within codes was then determined.

5. Relevant examples and quotations were selected to illustrate points made by participants.

A small number of questions used a multiple-indicator (e.g. Likert scale) to identify participants' views. The data were imported and analysed in Excel.

3.7   Summary

This research used a combination of interviews and focus groups. These methods suited this research where initial general themes were expressed by interview. These themes were then discussed in focus groups before more specific information was sought from individuals. Following analysis of the data, final validation interviews were conducted and then data interpreted.

The main steps of this qualitative research are shown in Figure 3.3:
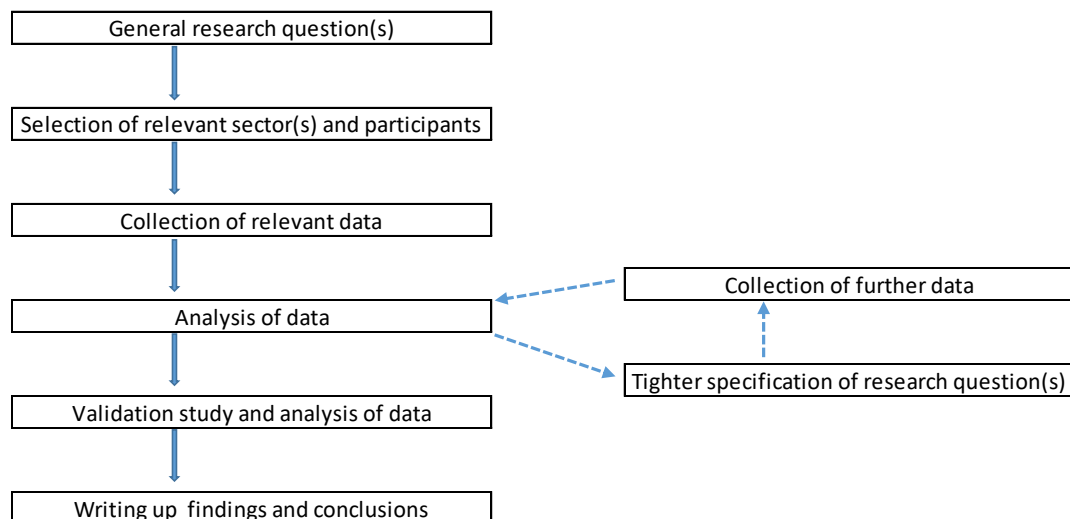
Figure 3.3   Summary of main steps for this qualitative research (Source Bryman 2012)

All study chapter results follow the same presentation format i.e. study question followed by participants' response.

Chapter 4   Employers' perceptions regarding the health and safety of older workers (interview study)

The overall intention of this first study was to begin to understand employers' views and reactions to the ageing workforce and opportunities and challenges with the implementation of health and safety age management strategies.

4.1   Aims of study

Specific aims were to address the following questions from the employers' perspective:

- What implications does an ageing workforce have for organisations?

- What health and safety benefits do older workers bring to the workplace?

- To what extent have health and safety age management strategies been implemented?

- How is health and safety knowledge transferred from experienced older workers to inexperienced personnel?

4.2   Methods

4.2.1 Interview schedule development

Semi-structured interviews were used for this study, an approach which allowed for flexibility to explore interviewee responses (Bryman 2012). Five senior managers participated in pilot interviews and following this process, one additional question was included to examine specific health and safety benefits older workers bring to the workplace. In the interest of clarity, there

were also some minor amendments to the wording of questions. The final interview schedule can be seen in Appendix B.

4.2.2 Sampling and data collection

The target population for this study were senior managers who influence health and safety management strategies (e.g. design, develop, implement). It was also the intention that data should be collected from a wide variety of sectors and organisation sizes. Industry sector classification was determined using the Standard Industrial Classification 2007 (SIC 2007) (ONS 2014). This common framework classifies organisations into specific sectors according to their main activity. For this research, organisation size was classified according to number of persons employed (European Commission 2014):

- Micro – fewer than 10 employees
- Small – 10 to 49 employees
- Medium – 50 to 249 employees
- Large - 250 or more employees

Participants (n=41) were recruited as a convenience sample by contacting local organisations and using snowball follow ups. Participants were also recruited through organisations offering to help with this study following a request placed via:

- An article in the May 2014 edition of the Safety and Health Practitioner magazine (SHP)
- LinkedIn – CIEHF specialist group for Ageing and Work and Health and Safety Professionals UK Group

The interviews were conducted either face-to-face (n=11) or via telephone (n=30). The face-to-face interviews lasted between 50 to 75 minutes. The duration of the telephone interviews ranged 25 to 40 minutes.

At the commencement of each interview, all participants were given a verbal summary of the research aims and an explanation that 'older workers' were defined as 50 years and older. The research complied with the requirements of Loughborough University Ethical Advisory Committee. Participants' job title and role were ascertained to confirm they had a relevant position consistent with the research aims (these were categorised into a 'closest fit' category (Table 4.1).

Table 4.1   Participant job title

Health & Safety - Director, Manager, Officer, Advisor	20
Operations - Director, Manager	9
Occupational Health - Manager, Advisor	3
Head of Facilities, Risk	3
Managing Director	2
Head of Standards & Governance	2
HR - Director, Manager	2

TOTAL   41

The interviews were recorded by the researcher taking notes in shorthand*. Participants were also invited to send the researcher any additional comments that occurred to them following the interview.   Any subsequent follow-up correspondence was treated in the same way as the interview and the comments were added to their interview file and analysed alongside the other interview data for reporting purposes.

the researcher has qualifications in Pitman New Era shorthand

4.2.3   Data analysis

Once all interviews had been completed, they were transferred into qualitative data analysis software QSR NVIVO (version 10). As the interviews were coded, themes and patterns were identified in response to the frequency of answers to key questions (thematic analysis) (Braun and Clarke 2006). During the thematic analysis both deductive and inductive coding were used (Bryman, 2012). Deductive coding was used initially for each specific themed question such as "we know the workforce is ageing – do you think this will have any implications for an employer?" – an example of coding was "financial" and "succession". This was followed by inductive coding, used to breakdown these themes further by opinions of why "financial" and "succession" may be an implication.

4.3   Results

4.3.1   Organisational Information

Table 4.2 shows the details of sector, size and number of interviews conducted.

Participants (n=41) were asked if they currently employ anyone over 65 years of age, 73% (n=30) confirmed they currently employed at least one person over 65 years of age. Of the organisations classified as 'large' 72% (n=21) employed at least one person aged over 65 years. Similarly, organisations classified as 'medium', 67% (n=6) reported having at least one worker older than 65 years of age. All of the organisations classified as 'small', 100% (n=3), indicated they employed at least one person over 65 years of age.

Table 4.2   Sector and employment profile of participating organisations

SECTOR	Number of Employees			TOTALS
	10 to 49	**50 to 249**	**250 +**	
Manufacturing	1	5	8	**14**
Electricity, Gas, Steam & Air Conditioning	1		4	**5**
Education		1	3	**4**
Wholesale & Retail Trade			3	**3**
Transport & Storage	1		2	**3**
Human Health & Social Work			3	**3**
Professional, Scientific & Technical			2	**2**
Public Administration & Defence			2	**2**
Agriculture, Forestry, Fishing			1	**1**
Mining & Quarrying		1		**1**
Water, Sewerage & Waste Management		1		**1**
Construction		1		**1**
Arts, Entertainment & Recreation			1	**1**
TOTALS	**3**	**9**	**29**	**41**

4.3.2 Question analysis

The following sections present the employer participant responses to each question in the interview schedule.

Question: Are you anticipating a higher proportion of older workers (50+ years) in the next 5 to 10 years in your organisation?

The majority of employer participants, 83% (n=34), responded that they expected to see a higher proportion of older workers in their organisation within the next 5 to 10 years. One participant, although initially saying Yes to this question, then said they use sub-contractors to perform heavy work and

experience a high turnover of staff, so was unsure about a definite response. One participant from the education sector was not sure about how the future worker profile would look so declined to comment. The remaining participants did not expect to see any change in their proportion of older workers. One participant clarified this by saying that due to the nature of their business they attracted a young workforce. Another organisation had recently conducted a recruitment campaign and had employed younger workers. One participant said that their current pension scheme deterred workers from remaining in the workforce past 65 years of age.

Question: We know the workforce is ageing – do you think this will have any implications for an employer and/or worker?

Although some of the responses to this question were sector specific there was also some agreement of responses. Ninety-eight percent (n=40) participants believed they would experience one or more implications as their workforce aged (see Figure 4.1). Only one participant believed there would be no implication of an ageing workforce for their organisation. Sub-contractors were engaged for heavy work and once workers felt they were struggling to perform their role they left voluntarily.

<u>Reporting culture and hidden health problems</u>
Lack of knowledge about workers' who may have capability changes, received the most responses to this question, 66% (n=27). Participants believed that workers were not always volunteering information about potential problems they may be experiencing. Various comments were made about the organisation requiring 'a cultural shift' as people were concerned about the consequences if they declared any capability decline. One participant from the manufacturing sector commented that men are especially difficult to encourage to be 'open and honest' about health issues, as they perceive these as weaknesses and will be reluctant to acknowledge any problems. Another potential problem highlighted was the lack of knowledge

surrounding workers who take medication, 20% (n=8), which may have side-effects that could potentially impact on the safety of the worker or their colleagues. Some participants felt that older workers may be hiding capability declines because they were financially insecure, so the key driver was to remain in work at all costs.
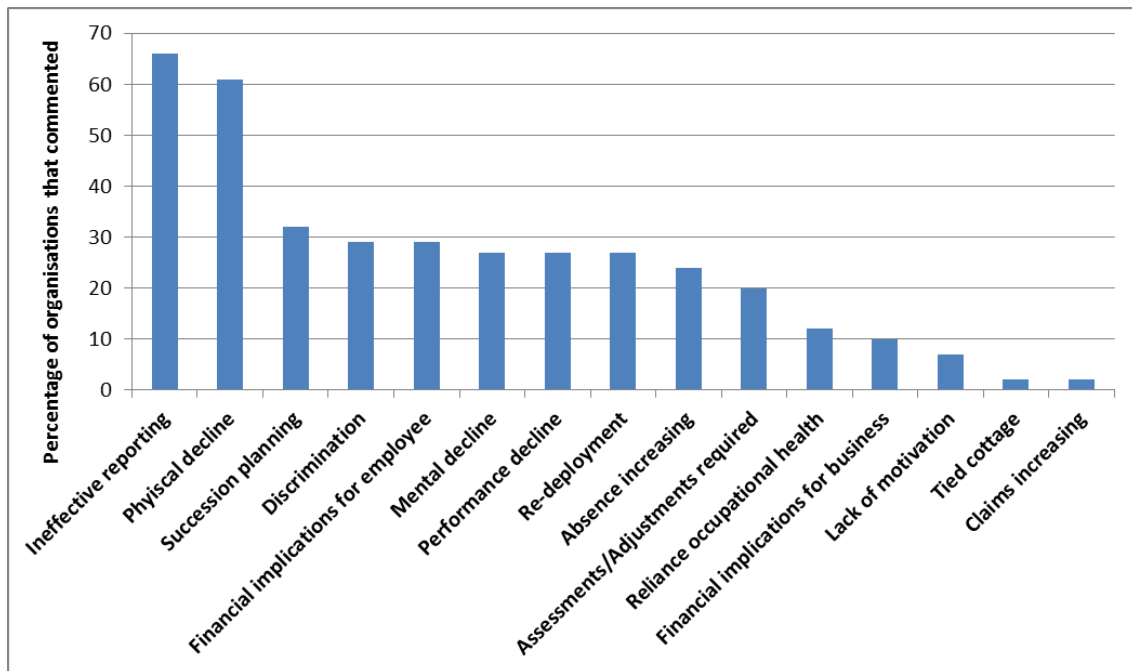
Figure 4.1   Overview of implications of an ageing workforce

"We need a more open culture and encourage people to go to their line managers if they have problems and then they get referred to occupational health. However you can't force people to let you know if they are having problems, ill health or on medication." (Interview 21, Health and Safety Manager, Human Health)

"People still think it will be frowned upon if you admit you are having problems, especially if it's something that is not going to get better but related to age decline." (Interview 28, Group Health and Safety Manager, Arts & Entertainment)

Some participants believed that workers hidden health issues could potentially increase risk to other workers. Examples provided could be possible distraction when in pain, or 'mates' inadvertently exacerbating the situation by completing their colleague's duties.

> *"Those with health issues can be a concern, as the team are very protective, especially towards the long service workers and will always try to help them out." (Interview 7, Chief Mining Engineer, Mining)*

Some participants, 12% (n=5), explained that they were reliant on the occupational health function to help detect any changes in their older workers.

> *"Occupational health is going to be key… As a business we know we have an ageing workforce with lots of guys having worked here for 20+ years. We consider them within the normal occupational health regime but we don't really consider them from an age point of view spotting declines." (This respondent went on to comment that he believed this could be due to the fact that it may be viewed as discriminatory) (Interview 38, Head of Health and Safety, Manufacturing)*

In terms of current practice, some organisations chose to provide health surveillance for their higher risk workers only (e.g. those undertaking work at height, work in confined spaces, driving), other organisations conducted surveillance every 3 years for all workers, whilst some organisations did not conduct any health surveillance. Participants said that the surveillance relied on honesty of the worker and in many cases was used as a reactive measure. Some discussed the benefits of in-house occupational health provision who could offer continuity and build a rapport with workers, which could hopefully enable them to work together as a team to resolve any problems. Some organisations relied on the completion of health questionnaires, but participants admitted they struggled to persuade people

to complete them. One interviewee discussed the importance of knowing about health conditions and provided an example of a worker with diabetes, who worked in exceptionally hot environments, but without the correct control measures his condition could be exacerbated. In the majority of situations there was a reliance on line managers to identify problems, however this raises a further challenge as participants indicated that line managers did not receive training on age awareness.

One participant commented that they had already recognised the importance of changing their culture. They held regular discussions with their workers to build trust.

> *"If people are not involved they won't have buy in, therefore they are less likely to admit if they are having any problems." (Interview 36, Environment Health and Safety Director, Manufacturing)*

Physical and mental changes

Decline in physical, 61% (n=25), and mental, 27% (n=11), capabilities were mentioned frequently in the interviews. Various comments were received alluding to the fact that organisations are unsure about how to handle their ageing workforce should they experience capability changes.

> *"I'm not sure how some workers with physical jobs are going to continue working past 60 years old, I'm not sure what is going to happen to them." (Interview 10, Health and Safety Advisor, Manufacturing)*

Two participants provided examples of physical work tasks where they believed it would be difficult to implement any practical adjustments. Security work was one example and the physical aspect of searching lorries. Cleaning was also highlighted as another task difficult to implement practical adjustments. The participant had adjusted the worker's work hours, but it was still physical work. One interviewee said their organisation (operating a

lean business) was already experiencing older workers struggling with physical problems. They felt there would be a problem if workers' capabilities decline below the job requirements.

> *"People are basically knackered, they have worked for 35 years, but are then not capable of carrying on, that's going to be horrible telling them they are no longer wanted when they have been so loyal. How do you treat people with respect, as with the removal of the default retirement age and people staying in the workplace longer with declining capabilities may see dignity taken away from the individual."* (Interview 23, HR Manager, Manufacturing).

A separate comment received by email was regarding a 51 year old plasterer, who is experiencing physical decline. The correspondence referred to the plasterer as "too young to retire, but becoming too physically worn out to be able to work in his current capacity for much longer".

Participants raised concerns about potential changes in mental capability, with regard to inability to maintain high levels of concentration and effort, required to react and intervene in non-routine situations. There was also a concern regarding older workers' ability to adapt to new skills and technology, 15% (n=6). One participant felt there could potentially be an incompatibility of age and capability, which may result in age discrimination as managers preferred working with younger teams.

Another manager discussed the inability of two of their older workers to learn the computer skills essential to undertake certain tasks and as a result the older workers had become stressed. Another participant commented that some of their older workers were less inclined to embrace new technology or procedures. While another participant commented that older workers benefit from targeted training.

"I have noticed training needs to be adapted for older workers to absorb it and they are more open if training is targeted for the audience…." (Interview 17, Safety Health and Environment Manager, Retail)

Increased absenteeism

Some participants, 24% (n=10), believed that as the workforce ages they will see increased absenteeism as a result of general health declines in older workers.

"Increased ill-health which will mean more time off. We are already seeing this in the 55 to 60 age group as they seem less able to cope with stress." (Interview 15, Health and Safety Director, Professional Scientific and Technical)

Two participants believed they would see increased absenteeism as a result of their particular culture, as 'feigning illness' was a way of having additional time off. One participant from a manufacturing organisation, however, commented that their older workers are actually less inclined to take time off.

Performance

Decline in performance was seen as a potential problem by some interviewees, 27% (n=11). One participant felt it would be difficult to implement control measures for different workers' capabilities and emphasised that jobs had certain requirements that must be met. Another participant had witnessed restructuring within their organisation, this had left the organisation with no additional capacity to cover for workers who had difficulty meeting their work targets.

"The business is squeezed for producing good numbers and we can't afford to carry dead wood when you have to reach a certain turnover per hour per employee." (Interview 35, Operations Manager, Retail)

One participant from a manufacturing company discussed the example of one of their 'inspection workers', whose reduced physical capabilities affected their performance and this was having an impact on the rest of their team. The 'inspection work' was seen as an easier task and was generally used as part of a rotation plan, however this particular worker could only perform this one 'lighter duty' task, which meant the rest of the team were excluded from this lighter duty.

Another participant commented:

> *"We need to be more proactive, have stronger awareness and monitor people's performance. We tend to take the older worker for granted that they are capable and dependable…" (Interview 16, Health and Safety Manager, Manufacturing)*

One participant in the wholesale and retail sector believed their organisation may see employer liability claims increasing for both physical and mental issues and said this was a "ticking time bomb".   Motivation was raised as an implication by participants, 7% (n=3). One participant from the transport sector said it was difficult to keep their workers motivated as they got older, especially those performing physical tasks. These workers had specialist skills, however there was only one other company in the area where they could work, hence they felt 'stuck in their job'. A participant from the energy sector said they were facing huge numbers of workers nearing retirement in the next five years. However during this period, the particular type of work they performed would cease and whilst many of these workers were planning to take redundancy, there was now an issue of keeping people motivated and safe.

Redeployment

With possible declining performance, redeployment was also discussed by employer participants, 27% (n=11). For some organisations, redeployment

had been an option due to the relatively low numbers involved. However, others believed this may prove difficult in future if the numbers of people requiring alternative work increases. One participant commented that they no longer see a turnover of staff, which means older workers are no longer able to move from the more physically demanding roles into alternative positions. Another participant explained that moving older workers to less physically demanding environments is no longer an option as those jobs have now been contracted out.

A participant from a manufacturing organisation commented that they will try to redeploy those with capability declines if they are under 65 years of age, however this will be considered alongside the worker's past performance and previous injuries and health. Post 65 years, they will be required to demonstrate they are medically fit to continue and also have the required transferable skills.

Another participant from the manufacturing sector said they faced a challenge, which may prove difficult to resolve, as currently people are 'promoted' on seniority (job tenure/time served), rather than skills and knowledge and this is causing problems if older workers need to be redeployed. This particular site is currently negotiating with the Unions to change this situation as the company feel 'they have their hands tied' if people have permanent declines and they are not 'next in line' for promotion.

Financial implications
The worker's own personal finances were also cited as a potential implication, 29% (n=12), with some participants believing this issue will increase within the next 5 to 10 years. One of the key points raised was regarding pensions, either people being tied into a company pension 'golden handcuffs', or having inadequate pension arrangements.

Another issue related to changing family structures and increased financial burdens placed on older workers arising from this. Comments were made about caring responsibilities, revolving around both elderly parents and grandchildren and also that some workers were having children later in life, so still having additional financial burdens in their 60's, all meaning they cannot afford to leave paid employment. One participant from the agricultural sector highlighted that their work was extremely physically demanding but, for some, retirement was not an option as their home was tied to their job.

Participants, 10% (n=4), suggested their organisations may face increasing financial implications as their workforce ages. One participant believed they would experience higher costs 'keeping people on the books' with high absenteeism. Two participants discussed cost implications regarding training investment. One said:

> "There is a lot of electronic analysis equipment involved and we have to train everyone annually at a cost of £5k/person, a) do you want to spend that amount on someone who is possibly retiring the following year, b) a lot of the older workers 60+ aren't keen to do training anyway." (Interview 39, Operations Director, Construction)

Another participant suggested their organisation may lose contracts, as their older workers were unable to meet the fast paced production targets. This was forcing them to include additional labour in their tender bids, which would make their organisation uncompetitive. One interviewee highlighted problems associated with their shift workers, who as they aged started to experience fatigue, but they could not afford to leave shifts and take a reduction in pay.

Succession planning

Employer participants, 32% (n=13), stated succession planning was a potential problem, believing it may be difficult to 'get movement and flexibility' in their workforce. Some thought younger workers may sometimes perceive

older workers as 'blockers' to their promotion prospects.

One participant had witnessed problems with succession planning at opposite ends of the age spectrum. They recruited two apprentices, but then found that the older workers they were due to replace had decided not to retire. This had both headcount and financial consequences. Some participants discussed problems with short notice periods, explaining that in some cases, those planning to retire only had to give one month's notice, making it difficult to fill technical roles at such short notice.

Discrimination

Nearly a third, 29% (n=12), of participants indicated their organisation was unsure how to proceed with implementing age management strategy as it may be viewed as discriminatory. A participant from the manufacturing sector said it was important to keep everyone safe and healthy and this required proactive measures. At the moment however, actions were predominantly reactive and any 'age related' proactive suggestions were being viewed by their human resource department as discriminatory. Another participant from the retail sector shared the same views, saying their human resources department offered no guidance until capability changes became a problem and were then dealt with reactively.

> *"Employers have a problem tackling this, as it's possibly seen as discriminatory and they don't really know what to do. It will be interesting to see what the HSE do, as the HSE changing or adding to legislation would help give employers some foundation to move forward, so that it's included alongside young workers, pregnant workers etc." (Interview 21, Health and Safety Manager, Human Health)*

<u>Workplace assessments</u>

There was agreement by some participants, 12% (n=5), that they would need to implement changes, with some hoping that their risk assessment process will identify the changes required. Within one manufacturing organisation, a more robust task assessment had been suggested, which would consider the person/job specification in more detail. However this initiative had failed due to lack of human resources support.

Other participants commented that age and related declines should be included in risk assessments proactively, rather than reactively carrying out an individual capability assessment once an individual had developed capability problems. Others commented that changes to the working environment would need to be considered, such as better lighting. Possible organisational changes were also mentioned e.g. job rotation, changing team structures, or using new technologies which allowed for home working or flexible working hours, thus providing better home-work balance.

Question: With regards to older workers (50+ years) do you have any health and safety concerns?

Employer participants from 93% (n=38) of organisations believed there may be, one or more, health and safety concerns regarding their older workers. Only three organisations stated they had no health and safety concerns regarding older workers. The concerns were split into three main categories.

- Job/task concerns (n=56)
- Mental capability concerns (n=20)
- Health issues (n=28)

<u>Job/task concerns</u>

Employer interviewees discussed concerns around particular task activities. As shown in Figure 4.2 of greatest concern was older workers involved in manual handling tasks (n=19).   One participant from the health sector

commented that although it is a very physical environment and controls have already been implemented to help with lifting and carrying, unfortunately there is still a requirement for manual handling and there are still some tasks where it is impossible to implement adjustments. The interviewee commented that problems may increase, as it was noticed that the number of patients who are obese has increased.
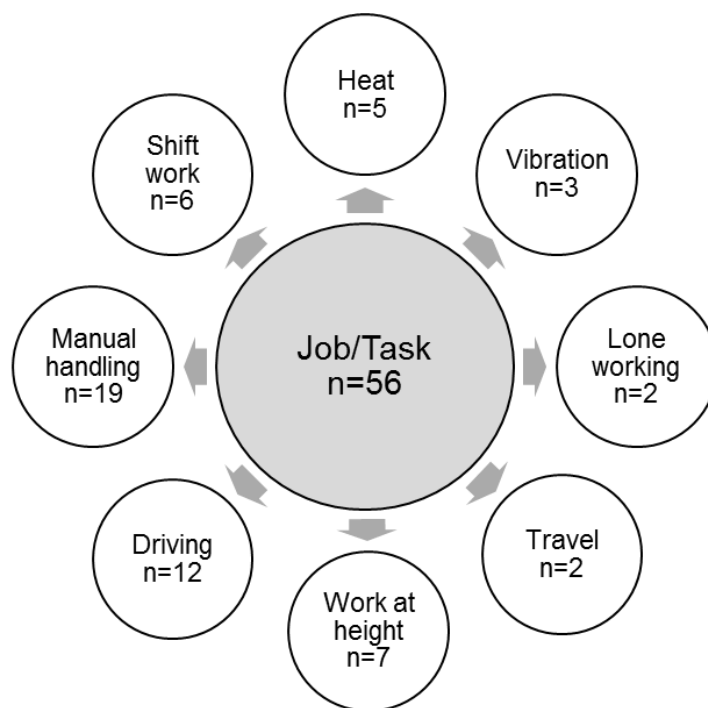
Figure 4.2 Overview of health and safety concerns of job/task

Concerns about shift working were also discussed (n=6). Two participants raised the issue of their organisation's 12-hour shift patterns which they believed caused fatigue, putting older workers and others at risk. One participant commented that their shift workers' social life revolves around shifts and even when people are having problems, they do not want to stop working the shift pattern, so keep on struggling. This is proving an issue for this organisation as older workers cannot be forced to stop shift work.

Other concerns were older workers working in higher risk environments i.e. working at height (n=7); working with vibrating equipment (n=3); or lone-working (n=2). Some participants discussed specific examples: an older worker who worked at height, who they believed should not be performing this task, as they not only had diabetes, but also had a hernia, which required a support girdle which limited flexibility; older workers travelling abroad, working on projects for long periods of time. Their workers were unfamiliar with hot climates and there was the additional worry regarding lack of advanced medical facilities in developing countries.

Also of concern was driving (n=12), this included both mobile plant and road users as part of their job. One participant believed some workers may be taking medication which may have possible side-effects. They thought these should be checked against DVLA medical standards to see if the employer should be requesting the worker to drive.

Mental capability concerns

Participants raised various mental and cognitive concerns as their worker population aged (Figure 4.3). Increasing stress was highlighted by participants (n=7). One participant said they were seeing a culmination of problems affecting men around 50 years, as not only were they working longer hours, but when they went on holiday they were either taking their blackberry with them, or were returning to work to hundreds of emails. Fatigue was also highlighted (n=5). One participant from the health sector highlighted fatigue amongst nursing staff who work 12 hour shifts and, due to the amount of work involved, they struggled to take breaks. They suggested that due to their tiredness, this may also increase slips and trips in their older workforce. Concerns were also raised about decline in risk perception (n=1) and reduced concentration (n=2). Comments were made about older workers being complacent, possibly due to familiarity of their environment.

"Mining can be more dangerous for those older than 50 when they go to a new mine or environment as they think they know it all." (Interview 6, Chief Mining Engineer, Mining)

Another participant had already noticed a decline in risk perception, normally from about 55+ years old. They could not explain why it happened, but said:

"Some don't always see the risks anymore. Maybe it's because they are more accepting of the risks around them." (Interview 40, Managing Director, Manufacturing)

Slower reaction time was raised as a concern (n=5). One example came from the fire and rescue sector, with the participant saying that they had older workers going into critical unsafe environments. The work required the person to be flexible and maintain concentration for long periods of time. As the workforce ages the participant was unsure how long older workers would be able to maintain the required level of awareness to keep themselves and others safe.
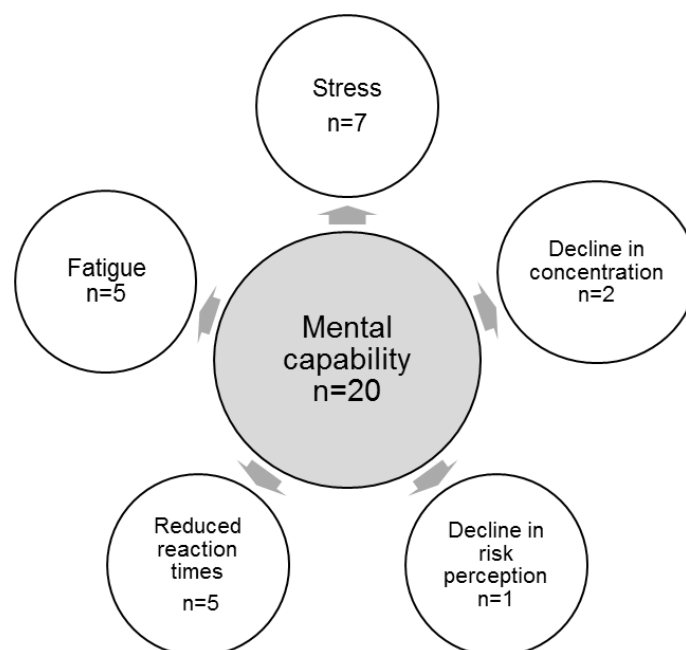
Figure 4.3   Overview of health and safety concerns with decline in mental capabilities

<u>Health issues</u>

A number of health issues were raised (Figure 4.4). Participants highlighted various general health issues (n=14) that they believed would start to manifest as their workers age, particularly cancer, diabetes and cardio-vascular. They also discussed possible declines in sensory capabilities: vision (n=3) and hearing (n=1). Older workers possibly experiencing skin problems (dermatitis) from previous working exposure was also raised as a concern (n=3). Obesity was also a concern for some participants (n=7). One participant discussed the task of digging trenches, however, due to weight gain their older workers' performance had declined, putting pressure on their younger colleagues to complete additional work.
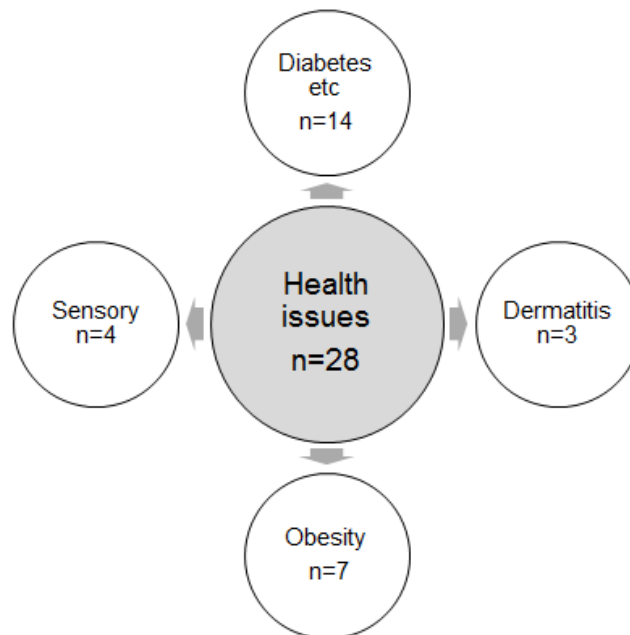
Figure 4.4 Overview of health and safety concerns in relation to increased health issues

Question: Do you see any gender differences in the health and safety issues of workers 50+ years old?

A fifth of participants, 20% (n=8), reported that they had seen gender differences in health and safety issues in their older workers. Of these,

seven related to female differences. One interviewee commented that older female workers tend to be more safety aware. Others believed female older workers may face the double burden of working and caring responsibilities for older parents and grandchildren. Other remarks from participants were regarding women possibly more prone to arthritis and the consequence of capability changes resulting in older women unable to attain the job requirement threshold.

A respondent from the fire and rescue sector gave the following comment:

> *"We may see some menopausal problems that up until now haven't been an issue, because women had been retiring earlier." (Interview 42, Occupational Health Advisor, Public Administration)*

Only one interviewee stated a difference for the males, believing there was a higher increase in knee problems and hence difficulty in performing certain work activities.

Question: Do you think older workers (50+ years) bring health and safety benefits to the workplace?

All employer participants, 100% (n=41), stated that older workers bring health and safety benefits to the workplace. The key benefits commented on by participants, 80% (n=33), was older workers' experience and knowledge. Another benefit cited was their 'common sense'. Older workers bring a stability and maturity that produces a more cautious attitude, resulting in being less likely to react to changing situations too quickly, without giving consideration to the consequences.

> *"Older workers don't tend to be risk takers." (Interview 37, Head of Facilities, Human Health)*

Due to this experience and knowledge the participants felt that older workers understand the 'bigger picture' and are able to anticipate problems and correct them in a timely manner; some of this being the result of their experience and knowledge of previous incidents. Two participants from manufacturing organisations gave the following responses:

> "Their perception is a little bit more real because they have worked in high hazardous environments in the past." (Interview 24, Health and Safety Manager, Manufacturing)

> "They are speaking from hands-on experience when talking about health and safety – some of them are poacher turned gamekeeper." (Interview 26, Global Health and Safety Director, Manufacturing)

Behaviours and positive actions were seen as a health and safety benefit by 22% (n=9). One participant stated that some of their workers see change as a good thing. They quoted an example where hearing protection had been introduced in one area of the site and they had noticed some of the older workers were choosing to wear their personal protective equipment (PPE), even when it was not a requirement.

However, 51% (n=21), of participants commented that older workers can also be reluctant to change and unhelpful. Experience was also construed negatively by some, with participants commenting on established bad habits being passed on to younger workers and older workers taking short cuts instead of following the rules. Inflexibility was also mentioned, with one participant commenting that when it gets to 5pm their workers will be out the door, as they like routine. Further negative comments were also made about changing and adapting to new technology and seeing different levels of enthusiasm with some 'older chaps' shying away from this activity.

"What is gained by their experience, we lose by reduced capabilities and loss of concentration and complacency." (Interview 16, Health and Safety Manager, Manufacturing)

"It depends on their attitude and tenure. For example, if they have moved to another site and are 'new' they can be more enthusiastic. However others can be cynical, it depends on their business knowledge age. They can be blockers to ideas and say things have already been tried and why try to change things. They are harder to convince as they have seen a lot of things fail in the past." (Interview 32, Head of Standards and Governance (HSE Group), Wholesale / Retail)

One participant from a manufacturing organisation commented that although it depends on the individual, with some older workers being level-headed at a time of crisis and less inclined to dive in, others can jump in before assessing the situation fully.

Separate correspondence was received from various professionals following the research advert in the SHP magazine and request posted on LinkedIn site. One correspondent stated:

"I have discussed the 'age issue' with many employers, who are often quite concerned how they are to manage their older workers. There are many health and safety benefits in employing older workers, however many employers have difficulty in seeing beyond the potential negative issues." (Communication with Employee Risk Manager).

Question: Has your company taken any action/begun to take measures that respond to an ageing workforce? Followed by a subsequent question (where appropriate) **What form do these measures take?**

The following responses were given with respect to actions and plans:

- Completed actions already 44% (n=18)
- Have plans that are expected to be implemented within the next 12 months 10% (n=4)
- Currently having discussions on how to proceed 5% (n=2)
- No plans 41% (n=17)

The organisations that had already completed actions, 44% (n=18), were then asked what they had implemented with the following responses (see Figure 4.5).
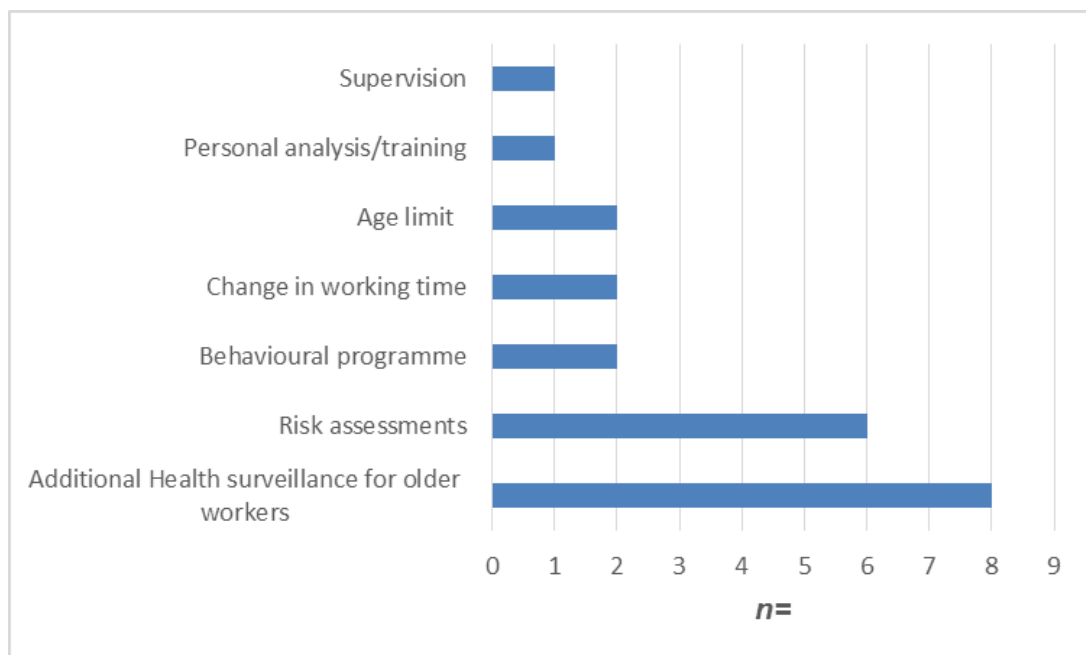
Figure 4.5 Health and safety control measures implemented by organisations

Additional health surveillance had been implemented for older workers by n=8 organisations. One participant from the energy sector stated that they provide health surveillance for specific high risk tasks every 5 years for workers up to 50 years old, then every 2 years for 50 to 65 year olds and this increases to annually for those 65 + years old.

Additional risk assessment based on the individual's role and capability had been implemented by n=6 organisations. One participant stated that they used a multi-disciplinary approach with operational personnel, occupational health and health and safety personnel, reviewing both the activity and the individual.

The option of flexible working hours (part-time working or changes to start times) had been implemented by n=2 organisations. The implementation of an age limit for specific tasks had been introduced by n=2 organisations, with one of these organisations performing closer supervisor observations on their older workers and work rotas changed when needed.   Two organisations had introduced a behavioural safety programme; one participant commented that this programme targeted generational differences, the other participant said that the programme had enhanced observations for older workers as they believed risk perception declined with age.

Personal development courses had been introduced by n=1 organisation, which enabled workers to consider their future career (what they wanted to do next/later in their careers and self-analysis as to whether they felt they could still remain in their current role). The participant had noticed that these courses were especially popular with women.

Four organisations had plans to implement measures within the next 12 months. Two participants said they were planning to implement flexible working and one was planning to introduce health screening. The fourth organisation had an issue with vehicle and pedestrian movement in a particular area and was concerned about older workers walking slower in this environment, so planned to build a bridge. However some older workers raised concerns that this would introduce additional stairs.

Of the organisations that currently have no plans to implement additional control measures, 41% (n=17), seven stated that they were relying on existing health surveillance (provided for specific roles) to identify any

problems or highlight new requirements. One organisation stated that they already had a system of risk assessments and control measures implemented.

Question: Does your company provide any training about possible age related changes, what to look for, how to address these?

The majority of participants, 93% (n=38), stated that their organisation did not provide any specific training on age related matters. Of the three organisations who did provide some form of training, one was in a clinical setting. Another stated their managers could request the training, but this generally only happened if they experienced 'staff absence issues'. A third offered voluntary training to any interested workers, but only as part of retirement planning.

Question: Within the last two years has any worker over 50 years old taken early retirement or left your company due to their inability to carry on with their job role?

A high percentage of participants, 71% (n=29), said that their organisation had experienced workers over 50 years old taking early retirement within the last two years, due to their inability to carry on with their job role. Further discussions revealed that nearly 80% of those older workers retiring early were suffering from physical or health declines i.e. knee problems, back pain, obesity, diabetes, cancer and heart disease, with the others retiring early mainly due to stress. One organisation had to dismiss an older worker who was suffering with Alzheimer's.

> *"Someone developed diabetes and kept blacking out … Their job involved driving and lots of travel, but they could no longer do this job so left." (Interview 38, Head of Health and Safety, Manufacturing)*

"Exit interviews have picked up on the stress and strains of doing the job, but people have left voluntarily." (Interview 15, Health and Safety Director, Professional & Scientific)

Question: Does your organisation have any way to capture and transfer knowledge from experienced older workers?

When employer participants were asked about their measures to retain health and safety knowledge, responses varied significantly.   Of the organisations, 61% (n=25), that had procedures in place various approaches were utilised (see Figure 4.6).
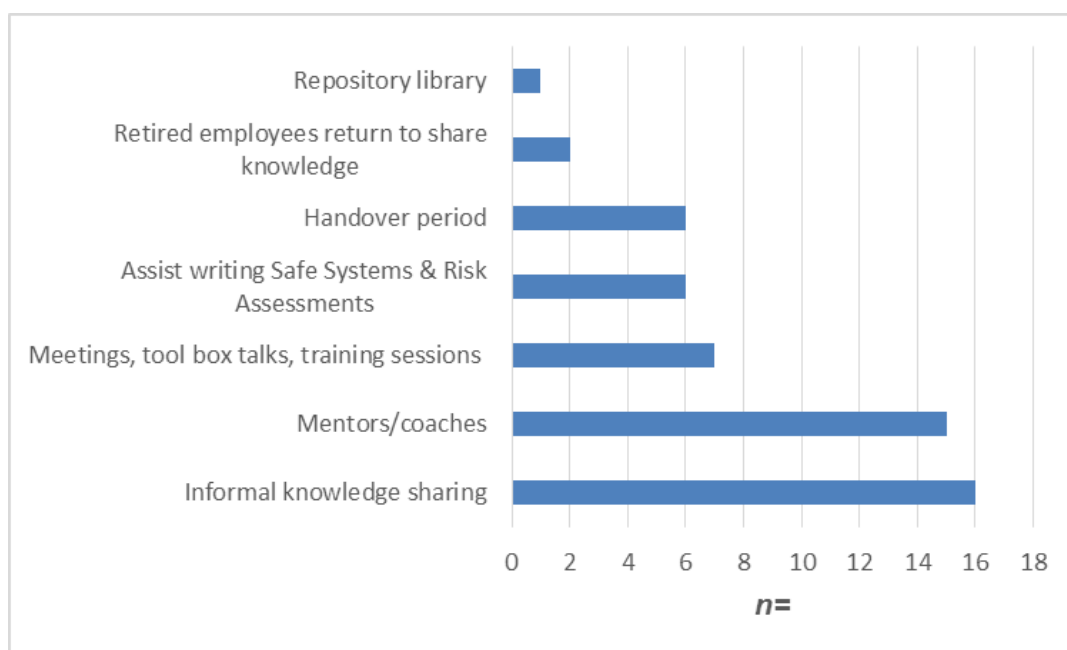
Figure 4.6   Methods of knowledge transfer

One method adopted by organisations (n=15) was using experienced mentors/coaches ('buddies') to pass on knowledge.

For the purposes of this study 'informal knowledge sharing' and 'mentors/coaches' were classified as separate categories. Organisations had nominated specific mentors/coaches, hence 'formalised' a process, whereas the reliance on 'informal knowledge sharing' involved all workers and the organisations had no process to determine whether knowledge transfer was actually taking place.

Some participants (n=6) also said their organisation used experienced older workers to assist in developing safe systems of work and risk assessments. Other participants (n=7) discussed various meetings, tool box talks and training sessions, that were arranged specifically for workers to share their experiences. A formal handover session when someone left their employment was used by (n=6) organisations. Utilising retired workers on an ad hoc basis was used by (n=2) organisations. One participant said their organisation had a library where information was lodged.

Over a third of organisations (n=16) represented had no formal processes in place to retain knowledge and relied on informal knowledge sharing only. Participants acknowledged that this left their organisation unsure what information had been disseminated, diluted and lost over time. One organisation said that knowledge was seen as power and there was no coordination of information, or communication between different departments as they were distrustful of each other.

Final question (optional): Is there any other comment you would like to make about health and safety and an age diverse workforce?

Responses to this final open question were considered for relevance to any of the above specific questions and accommodated where most appropriate for the presentation of results.

Examples of general comments not accommodated above:

> *"Older workers tend to be employed for seasonal work as they can offer flexibility, however we have to ask the question - are we employing the right people or just the cheapest?" (Interview 8, Health and Safety Officer, Transport)*

> *"We need to really think about how to build in age diversity, but it doesn't feature on peoples' agenda at the moment. It will probably be hitting organisations in the next 5 to 10 years as the age profile changes and more people decide to stay in the workforce." (Interview 40, Managing Director, Manufacturing)*

Following the interview some, 12% (n=5), stated the questions were 'helpful' and 'thought provoking' and would be adding 'an ageing workforce' item on their agenda.

> *"Training for all should be pursued further as formal competencies in health and safety are underdeveloped. We are celebrating the Year of Diversity but there is no mention of age. Exit interviews should capture additional information such as questions around the job and any difficulties experienced etc." (Interview 11, Assistant HR Director, Education)*

> *"Discussion around the questions has made me realise that we need to consider an ageing workforce further." (Interview 14, Facilities, Health and Safety and Risk Manager, Education)*

> *"I want to set up a working party because there is very little help and support for employers…" (Interview 23, HR Manager, Manufacturing)*

4.4   Discussion

This study explored employers' views and responses to the ageing workforce and opportunities and challenges with the implementation of health and safety age management strategies. The senior personnel interviewed appeared to be open and honest about their opinions regarding an ageing workforce. Although some of the findings could be considered to be sector specific, many of the key points were in agreement, regardless of sector and size of organisation. Although responses to each specific question were analysed individually, it would be misleading to view these in isolation, as many of the points were inter-linked.

4.4.1 Employers' views on the ageing workforce

Over 80% of employer participants believed that they may see a higher proportion of older workers in their organisation within the next five to ten years. Employer participants recognised that there are various reasons why older workers may wish to remain in the workforce. Financial security was cited by some, who expected this motivation to increase in the next five to ten years. A key point raised was regarding pensions, either people being tied to a company pension, 'golden handcuffs', or having inadequate pension arrangements. The consequences mean that workers lack empowerment to change employer or job, even if they are experiencing capability problems within their current role. Similarly Popkin et al (2008) and Johnson et al (2011) found that it may not be financially viable for older workers to leave employment.

Just over half of the employer participants commented about possible concerns regarding older workers, finding them reluctant to change and unhelpful. However, all agreed that older workers bring health and safety benefits to the workplace, being more stable and mature and providing a wealth of experience and knowledge. Research conducted by Ng and Feldman (2008) found that older workers demonstrated greater safety-related behaviour, were less aggressive at work and had less voluntary absence. Ng and Feldman concluded that the stereotypes around older workers were

largely unfounded. Negative views of older workers can be detrimental to their motivation to learn and develop (Kooji et al 2008, Ng and Feldman 2008, Gaillard and Desmette 2010).

4.4.2 Reporting culture: changing capabilities and hidden health problems

Changing capabilities (physical and cognitive) were seen as a concern for employer participants within their organisations. Other issues raised were with respect to health and medication, shift work, fatigue, reduced performance and higher absenteeism. However, when reviewing the results, one material factor considered a barrier to good health and safety practices was the ineffectiveness of the reporting culture. Two thirds of the employer participants believed workers were not reporting information about capability changes they may be experiencing.   Some thought that workers were unwilling to declare changing capabilities due to 'fear of consequences'. Employer participants discussed their concern that workers were 'hiding' their problems, with colleagues 'covering for them', which inadvertently put everyone at risk. There also appeared to be lack of knowledge about medication workers may be using. Due to under-reporting of health issues within some organisations, unless they improve on their limited understanding, issues will persist.

If employers are not identifying problems they will be unable to assess different capabilities and provide task adjustments and training where necessary (Popkin et al 2008). Hoonakker and Duivenbooden (2010) discussed the importance of a culture where health and safety reporting of work-related conditions is encouraged and said that it was necessary to have accurate reporting in order to identify specific risk factors and risk groups and thus implement the necessary interventions. Bohle et al (2010) said that work ability can only be maintained if appropriate interventions are implemented and Kowalski-Trakofler et al (2005) stated that ageing is a continuous process and abilities need to match the job, however this is

difficult if workers are concealing their health and capability status from their employer.

4.4.3 Health and safety actions responding to an ageing workforce

Over two-thirds of the employer participants said their organisation had experienced older workers with declining capabilities taking early retirement within the last two years. It was believed many of these were due to their inability to continue within their current role. To date, the majority of employer participants had experienced either the 'healthy worker effect', or had been able to offer redeployment. However as the workforce ages and organisations see their older worker numbers increase, neither of these options may be viable, due to the possible increased numbers involved.

Employers were asked if they had implemented any health and safety actions to help protect their older workers. Some participants commented that although they had made practical adjustments within their workplaces, these were not always sufficient. Currently, less than half had implemented any action. Many stated they were relying on existing health surveillance (mainly provided for those with specific roles) to identify any problems or highlight new requirements. Various comments were received suggesting that organisations were unsure how to handle their ageing workforce should they experience capability changes. These findings are consistent with the Foresight project undertaken for the UK Government (Buckle 2015). This noted that within the manufacturing sector, organisations tended to "focus on redeployment and flexible working practices, rather than more substantive infrastructure changes".

4.4.4 Health promotion

It was apparent from the interview responses that organisations were heavily reliant on occupational health surveillance to identify issues and detect capability changes. Whilst there is little doubt of the importance of the occupational health function, comments were predominantly focused on reactive occupational health (return to work) and periodic health surveillance. These findings concur with Haslam et al (2013), who reported that contact

with occupational health services rarely occurred and when it did happen, it generally seemed to be reactive e.g. reporting of musculoskeletal disorders. Some employer participants expect that as older workers' health declines, there will be increased absenteeism and this will result in the occupational health function becoming more reactive dealing with health issues e.g. knee problems, back pain, cancer and cardio-vascular problems.

Some of the employer participants stated that their organisation conducts health surveillance more frequently as their workers age. However it was clear that surveillance intervals varied greatly and, within some organisations, not all workers were selected to receive health checks. Early detection of issues should be valuable for organisations and probably quite easy to implement. Crawford et al (2010b) noted in their research that older workers see positive benefits of health checks. For a large portion of a workers' years employed there is a reliance on older workers proactively reporting if they are experiencing problems, or for their management teams to notice any potential issues. With the high number of employer participants saying that their reporting culture is unproductive, a reliance on workers volunteering information is likely to be ineffective. Comments regarding managers having responsibility to notice potential issues could also be problematic, as it was identified that they are not provided with the necessary tools and knowledge to recognise and address potential changing capabilities.

Whilst some employer participants said that their occupational health facility promoted various initiatives to all their workers e.g. blood pressure checks, it was not clear how popular these were. Haslam et al (2013) reported that organisations believed health promotion initiatives were poorly executed and workers felt that communication and information regarding the initiatives was limited.

4.4.5 Discrimination and guidance
Nearly a third of employer participants were relying on their occupational health facility to identify issues, because their organisation was unsure how to proceed with implementing age management strategies, as they may be

perceived as discriminatory. These findings are in line with Silverstein (2008) who reported that employers are fearful of being viewed as discriminatory so have been slow to meet the needs of older workers.

It would seem that 'age management' and 'age awareness' fall into both health and safety and a human resources remit and there appears to be difficulties sometimes with coordination between the two. During interview discussions, it was mentioned that the HSE providing more robust guidance would help give employers and health and safety professionals a better foundation on which to base their health and safety age management strategies. Nemath (2015) argued that offering something to older workers produces "a halo effect as it demonstrates to everyone that the organisation cares". He said that initiatives "may not be relevant to everyone in the organisation at that time, but they will be relevant at some point in time".

It was evident that personnel within the participating organisations lacked knowledge regarding the Equality Act 2010. Objective justification allows employers to directly discriminate against age, providing it contributes to a legitimate aim and there is no reasonable alternative. A legitimate aim might include health, safety and welfare protection of older workers, or where the employer believes people need to be treated differently to achieve business needs and efficiency. The HSE (2014e) state that it can be justifiable to discriminate in respect to age if it is proportionate to achieve a legitimate aim e.g. changes to a workplace required to ensure older workers are safe and can remain in work.

4.4.6 Age awareness training

Placing responsibility on managers to notice potential issues could be problematic, as it was identified that they are not provided with the necessary knowledge and tools to recognise and address changing capabilities. Age awareness training could benefit all workers. An outcome might be that managers would become more aware of what behaviour is perceived as discriminatory on grounds of age. It could enable health and safety plans to be implemented to ensure compliance with the Equality Act whilst keeping

older workers safe and healthy. It would also help tackle some of the negative stereotypes of older workers. Older workers themselves would feel more engaged within the organisation and more likely to report any changing capability issues if they feel more confident about how their personal issue will be dealt with.

4.4.7 Succession planning and knowledge transfer

For many organisations, succession planning was a potential problem. Previously, organisations kept personnel records showing a definite retirement date when it was expected people would need to be replaced. As ACAS (2006) suggested, analysing this information allowed for planning and action at peak retirement times. New recruits could be employed and receive health and safety training before older workers left the organisation. Now organisations are finding succession planning challenging as workers are either opting to provide a date when they may retire, but then choosing not to leave their employment, or they are only confirming their intention to leave giving a short notice period. This causes organisations problems, not only in the timely recruitment and health and safety training of new workers, but also in trying to transfer relevant health and safety knowledge. Although some organisations are using various methods to capture knowledge, overwhelmingly there is a reliance on informal knowledge sharing. A further difficulty organisations are experiencing revolves around the lack of knowledge about the extent and quality of the health and safety information communicated. This finding is consistent with research conducted by Pollack (2012) who noted "one of the principal limitations of such individual transfer of tacit knowledge is the potential for variability in the quality of transfer" and so advised that communities of practice should be established to optimise knowledge retention and dissemination.

4.4.8 Financial

When discussing possible implications of an ageing workforce, some employer participants commented that their organisation may incur additional financial costs. Various reasons were cited, 'keeping people on the books'

with high absenteeism, or loosing contracts due to reduced productivity. Cost implications regarding training investment was also discussed. This aligns with research conducted by Johnson et al (2011) who stated employers are reluctant to invest in training as they believe they will be unable to recoup the costs.

4.5   Strengths and limitations of study

The participants in this study were senior figures with health and safety responsibilities, able to provide informed opinion on their organisation's health and safety age management strategies. They appeared to be honest and willing to discuss the implications of an older workforce within their organisation, as indicated by some of their forthright views. As discussed, many were unsure how to address the future change in the age profile of their workforce and were interested to discuss the aims of this research to ascertain how it might help them move their health and safety management strategy forwards. Organisations commented that they felt there was little guidance and support from the HSE, so were struggling to know how to advance without their organisation being viewed as age discriminatory. As shown in the results, some organisations were intending to use the research questions as meeting agenda items.

The study was reliant on respondents' observations and opinions. These will vary in the extent to which they are accurate and well-informed. This study required that the target respondents should have health and safety responsibilities, in order to have the required knowledge to answer and discuss the questions. However this group of senior personnel did not necessarily possess the knowledge with regards to worker numbers and early retirement data. Also the health and safety professionals were not always involved with capability issues, which were viewed as a human resources/occupational health area. Therefore, whilst some reported data accurately, others were only able to provide estimates.

Whilst this study viewed older workers as 50 years old and over, many participants classified older workers as someone over 60 or 65 years old. At the start of the interview and whilst questions were being asked, careful repetition was given to emphasise this study was aimed at over 50 year olds.

Another limitation of the current study was the number of organisations in each size category and sector, skewed towards the manufacturing sector and larger organisations (250+ employees). This may limit the generalisability of the findings to other sectors and smaller employers.

4.6   Conclusions and next steps

The aims of this study were to understand employers' perceptions on the health and safety benefits older workers bring to the workplace and health and safety implications of an ageing workforce. The responses indicate that there is some recognition that older workers bring benefits to the workplace e.g. interpersonal skills, experience and work ethos. However, some comments were consistent with inaccurate stereotyping. Concerns were raised about capability changes (physical and cognitive) and problems surrounding the reporting culture, with acknowledgement that organisations lacked information about their workers' true health status and capabilities. Although older workers can compensate for age related decline in their capabilities, it is important that employers have management strategies in place to protect this group of workers from increased risks to their health and safety.

It was identified that less than half of the represented organisations had currently implemented any health and safety age management strategies. Of the organisations that had implemented actions, the most popular measure was additional health surveillance for older workers. It would also appear that there is no systematic approach to capturing and transferring health and safety knowledge from older to replacement workers. It was acknowledged that this left organisations unsure what information had been disseminated, diluted and lost over time.

The employer representatives in this study provided an overview of the readiness of their organisations to support health and safety of older workers and issues involved. However it would appear that many employers are dealing with their ageing workforce issues on a reactive basis as, at a broad level, the findings indicate many organisations are unsure how to proceed. Investigation is required to explore further the challenges identified by employers. Research is also warranted to understand older workers' experiences of capability changes and the adjustments necessary to enable them to remain at work.

Chapter 5   Older workers' perceptions regarding health and safety (focus groups)

The previous study in chapter 4 identified several key barriers to protecting and promoting the health and safety of older workers. The study presented in this chapter explored the workers' perception of an ageing workforce and their views on the barriers identified in the previous chapter.

5.1   Aims of study

The specific research questions were to understand, from the older workers' perspective:

- Should adjustments be made to help older workers remain in the workplace? When should they be actioned?
- What actions would their employer take, should a worker experience age related capability changes that affect their ability at work?
- Should age related capability changes occur that impact on work, do older workers believe the reporting culture within their organisation is effective?
- Whether older workers believe there is benefit in their organisation providing age awareness training and who should participate in the training?
- Is older workers' health and safety knowledge captured and transferred within the organisation? If so, how?
- Do older workers have suggestions that the employer could use to help them remain healthy and safe in the workplace?

5.2   Methods

5.2.1 Interview schedule development

Focus groups were the preferred method for this second study, in order to elicit a wide range of responses regarding the experience of older workers

concerning their health and safety and any actions/initiatives provided by employers. A set of prompt questions were used to provoke group discussion with 10 focus groups.   Six volunteers from the education sector were engaged to participate in a pilot focus group. Following this process a minor amendment was included. The final moderators guide can be seen in Appendix C.

5.2.2   Sampling and data collection

Target participants for this study were any workers over the age of 50 years. Apart from the pilot focus group in education, all of the remaining focus groups were conducted within the manufacturing sector i.e. construction products and mineral processing, as categorised according to the Standard Industrial Classification 2007 (SIC 2007) (ONS 2014). All were recruited using convenience sampling. The organisations taking part recruited participants.

At the commencement of every focus group all participants were given a verbal summary of the research aims and the explanation that an 'older worker' is defined as 50 years and older. The research complied with the requirements of Loughborough University Ethical Advisory Committee.

5.2.3   Data analysis

All focus groups were recorded. Once all focus groups had been transcribed verbatim the data were transferred into qualitative data analysis software QSR NVIVO (version 10). As the discussions were coded, themes and patterns were identified in response to the frequency of answers to key questions (Thematic Analysis), (Braun and Clarke 2006). During the thematic analysis both deductive and inductive coding was used (Bryman, 2012). Deductive coding was used initially for each specific themed question such as "many employers believe their reporting culture is poor in relation to workers reporting changes in capability – some believed fear of consequences do you agree with that?"   This was followed by inductive

coding, used to breakdown responses further as to why there was a fear of reporting.

5.3   Results

5.3.1   Organisational Information

Using convenience sampling, 10 focus groups were conducted (details are shown in Table 5.1). Although the education sector was used as the pilot focus group this has been included in the results as it enables pertinent comments to be included. Most of the groups were determined according to the nature of the participants' role i.e. managers/office personnel or operatives (production workers/semi or skilled personnel). The total number of participants was n=46. Manufacturing is the key sector chosen for the remainder of this research because, as an activity, manufacturing has exposure to a number of risks which can provide generalised results. The organisations were categorised according to number of employees, split between medium (employs 50 to 249) or large organisations (employs over 250 people). The duration for each focus group was approximately 1.5 hours.

5.3.2   Question analysis

The following sections summarise the participants' responses to each question in the group discussion schedule.   For each discussion point a table showing number of comments has been included – where there is no number shown this represents no comments provided by the group for that discussion point. In order to be consistent, it was necessary to count comments rather than identify who provided the comments, because it was difficult to identify different individuals during some of the recordings due to background noise and similar accents.

Table 5.1   Composition of older worker focus groups

Group No.	Participants	Gender	Sector	Size
1	Managers/Office	6 Male 1 Female	Manuf	Lge
2	Managers/Office	2 Male 2 Female	Manuf	Lge
3	Managers/Operatives *(Mixed)*	5 male	Manuf	Lge
4	Operatives	3 Male	Manuf	Lge
5	Managers/Office	4 Male	Manuf	Lge
6	Operatives	4 Male 1 Female	Manuf	Lge
7	Operatives	4 male	Manuf	Lge
8	Operatives	4 Male	Manuf	Med
9	Operatives	4 Male	Manuf	Med
10	Academics/Operatives *(Mixed)*	4 male 2 Female	Educ	Lge

Discussion Point 1:

- *If you see your employer implementing adjustments for older workers, would you see this as being fair to you and your age group?*
- *When should adjustments be implemented: a) when a person has problems, b) implemented for all over 50 years of age whether they have reported problems or not?*

Table 5.2 shows the responses to the first part of discussion 1.

Table 5.2   Responses to discussion regarding fairness of adjustments

Group No.	Participants	Responses/comments - if you see the employer implementing adjustments would you see this as …..	
		FAIR *n =*	UNFAIR *n =*
1	Managers/Office	7	
2	Managers/Office	2	2
3	Mixed	3	
4	Operatives	2	2
5	Managers/Office	4	
6	Operatives	1	
7	Operatives	2	1
8	Operatives	3	1
9	Operatives	3	1
10	Mixed (pilot)	4	
	TOTAL	**31**	**7**

A high number of the comments (n=31) were received believing that it was fair that the organisation should implement adjustments in order for older workers to remain in the workforce. It can be seen that comments confirming fairness were received from, 100% (n=10), organisations during this discussion. Two of the groups providing the highest number of 'fair' comments were managers/office personnel (Groups 1 and 5).

"Growing old is something you shouldn't be ashamed of and if there are any changes that can be facilitated and help then I think that's fantastic to extend your working life." (Mixed group 10)

"No I don't see it as unfair, we all have personal pride and almost everything we do in life we don't want to feel we can't do it because we have got to a certain age, but some things are just not possible. It takes me longer to recover from long haul flights, going to the gym or doing anything that has any physical exertion attached to it. I think that we have to recognise that that has to be managed and if a company recognises that as being the case and it's not about feeling

sorry for someone or a category of worker it's about you using that worker in a different way maybe. They need to maximise the person's capability according to the skill sets that are still there, maybe using that person as a source of knowledge, a source of inspiration to others." (Managers/Office group 5)

There was general agreement that if organisations could help facilitate older workers in extending their working lives that would be fair, as long as any measures were consistently applied. Examples of inconsistency were highlighted during focus group discussions. One example was the inconsistency of management support and actions between different departments:

"In the short-term the company puts things in place like after my knee operation. They did make changes for a short while, but once you are back full-time they have forgotten about you. I said to my manager 'I'm not supposed to be doing this' and he didn't respond."

"Well when I had knee problems they said if there is anything we can do for you, we will help you as much as we can. They also paid half the cost for my physio." (Operatives group 8)

Another example related to differing treatment according to gender as the following dialogue between male workers demonstrates:

"We were just discussing something this morning, there are some women working here, who can drop down to work a 4 or 3 day week, but there's nothing in place for me. I could job share with my work mate, but it's not allowed. But the female workers can."

"They can do it for females and they have just done it here."

"The company wouldn't like it because of the extra cost involved, like national insurance, as they will be employing two people for the same job and that's what it comes down too."

"Do you know what HR said to someone who asked about reducing their hours, well if you can't do your job you will have to leave."

"Was that to a male?"

"Yes a male."

"Well she didn't say that to a female." (Operatives group 8)

Table 5.2 shows comments (n=7) were given that it could also be unfair for adjustments to be actioned for older workers. Of the five focus groups who provided a negative comment, one of the groups was a group of manager/office personnel (Group 2), all of the other groups were operatives. One respondent believed it was fair to have measures, but emphasised that:

"It shouldn't be to the detriment of others." (Operatives group 4)

Other comments were given that it could be unfair to implement adjustments specifically for older workers if the employee had a physical job and their declining capabilities reduced their ability to maintain a sufficient level of work output. One group of operatives (Group 7) felt it would be fair to implement adjustments for older workers if they worked for an organisation with a wide range of ages. However they then discussed the problems of implementing adjustments within a working environment where everyone was of a similar age, they believed this would be unfair on everyone.

Table 5.3 shows responses to the second part of discussion 1.

When the focus groups were asked about the timing for implementing adjustments, a large number (n=17) of the comments were that they should be implemented for everyone over 50 years of age proactively. At least one comment was received from every organisation, 100% (n=10), that adjustments should be implemented for all over 50 years of age. One participant provided an example of a promotion their organisation had implemented which had benefitted them personally. They had attended a health and safety day and had volunteered to undergo some health

screening. The results showed that they had very high blood pressure and were advised to see their doctor urgently. Generally all the groups felt proactively implementing adjustments for everyone over 50 years of age would be beneficial as this would capture problems that may otherwise go unreported or unnoticed.

"Yes the changes can be gradual and you don't necessarily notice them happening."

"Yes you always feel the same inside your head."

"Yes I'm still 18."

"I think the risk assessment is important, because we do a lot of risk assessments about the task, but not the ability to do the task. The risk assessment standard should be more about the ability to do the task…" (Managers/office group 2)

"The problem is we are not in an ideal world, different people are looked at because of legislation and some are missed." (Operatives group 4)

Some of the comments (n=8) were that the adjustments should be implemented only when an individual felt they were experiencing problems.

"I think it does vary for people in this age bracket and some can be spring chickens and fit with good mental faculties well into their 60s and beyond and some younger than 50 can obviously develop progressive problems like reduced eyesight, back problems and ill health, so putting it in carte blanch may not be the most efficient way of doing it."

"Yes that can become formulaic. You should approach it on a person to person basis to meet their particular needs." (Mixed group 10)

Table 5.3   Responses to discussion on when should adjustments be implemented

Group No.	Participants	Individually as reqd *n =*	All >50/everyone *n =*
		Responses/comments - when should adjustments be implemented …..	
1	Managers/Office		1
2	Managers/Office	3	2
3	Mixed		1
4	Operatives		2
5	Managers/Office		1
6	Operatives		2
7	Operatives		1
8	Operatives		1
9	Operatives	2	4
10	Mixed (pilot)	3	2
	TOTAL	**8**	**17**

Discussion Point 2: If a worker's capabilities change and adjustments are not possible, or not enough, what do you think your employer would do?

Many focus group participants were unsure about what adjustments the organisation could put in place if an older worker's capabilities changed. Comments (n=18) ranged from "*I don't know*" to:

> "*It would be good if people were aware of what could happen and how the company were going to treat you, rather than a secret society where you don't know what will happen.*" *(Operatives Group 9)*

> "*I couldn't confidently say that everyone would get the same treatment.*" *(Managers/Office Group 2).*

When the participants were asked if they were aware of any actions their company had taken, some of those mentioned (Table 5.4) were constructive to help older workers remain in the workforce, while some were negative with

people being 'sacked'. When discussing actions about capability changes some comments (n=9) were made that participants tried to manage their own adjustments.

> *"They would be managed out the business on capability."*

> *"Yes if I go off sick because I can't cope, then come back and am still struggling they will sack me, even though I have been here 25 years."*

> *"That's so wrong."*

> *"I have had one week off ill in my whole working life, but if I am not capable I'm down the road, there's no compassion."*

> *"It's as soon as you enter the system … I had someone working for me, he had been here for 25 years. He had a bad back and couldn't work. We kept covering for him and then he got in the system and within 6 months they had dismissed him."*   Mixed group 3.

One group discussed changes their organisation had implemented in the past, however some of the older workers were suffering from the previous work regime.

> *"Years ago if you were struggling they would have been moved you to lighter duties, but there's nowhere to go now. The job is easier than it was years ago, because we used to hand stack but that's mostly done by palletiser now. Also the bags are lighter, they used to be 50kg, now they are 25kg. I used to throw the 50kg bags around, at times I used to pick up 2x50kg bags. I don't know how I used to pick that weight up. It's taken its toll on people here though, many are suffering with bad backs and knees because of that weight." (Operatives group 8).*

Table 5.4 Comments regarding actions when capabilities change

Group No.	Participants	Examples of company action
Responses/Comments - if an older worker's capabilities change what could happen …….
1	Managers/Office	Adjustments or removed from critical tasks (e.g.no working at height if balance declines)
2	Managers/Office	Moved to a different role
		Flexible working
3	Mixed	Using younger people for lifting
		Assessed persons capability and altered job accordingly, others given extra work
		Using them in a supporting role
		Managed out of business, basically sacked
		Try to remove time pressure factor
4	Operatives	Fork Lift Truck driver put in area with better flooring
		Adapted FLT seat for person with bad back
		Physio or pain management
		Contract out some work when person says cannot do it
5	Managers/Office	Referral to occupational health for job changes
		Younger person does some jobs
6	Operatives	Self-manage mini breaks between tasks
		Sacked
		Employed additional people due to workload (reactive)
		Offered part-time working
7	Operatives	*All examples only for short-term*
8	Operatives	Sacked
		Offered physio
		Improved lighting
9	Operatives	Offered part-time
10	Mixed	Offered part-time
		Work at home
		Flexible working (don't have to get up and drive early on wintery mornings)
		Being 'shifted around', put on redeployment list
		Items placed at higher levels (nothing on floor)
		Constructive dismissal
		Changes to job role and cut back on activities (only at a higher level)

Two participants had already considered their future working career and had decided to change jobs as they felt they would not have been able to continue in their previous roles. One group also highlighted that their organisation was trying to recruit higher qualified people and this had led to over-qualification of some personnel in an environment where there was no career progression opportunities.

One group discussed that everything was now computerised and they felt that some older workers were starting to feel like 'dinosaurs'.

"There was a chap who coined the phrase digital natives and digital immigrants and I think it's fair to say that we all fall into the category of digital immigrants. The natives are those that have grown up with information technology and I am certainly aware that unless we keep up with things like that we are going to miss out on health and safety resources etc. As you get older it is clear you get stuck unless you put a lot of effort into going into alien territories." (Mixed group 10).

Discussion Point 3: Many employers believe their reporting culture is poor in relation to workers reporting changes in capability:

- *Some thought fear of consequences may stop older workers reporting changes, what do you think?*
- *Are you encouraged to report any possible changes that may affect your work?*

The discussion commenced with an explanation that many of the employers believed the reporting culture within their organisations was poor in relation to capability changes that could impact on the health and safety of older workers. Many of the employers believed it could be a result of fear of consequences that was inhibiting older workers from reporting issues. Comments (n=41) aligned with employers' belief that fear of consequences is prohibiting older workers from reporting problems (Table 5.5). Some participants cited previous experiences as a reason for their distrust:

"People deliberately will not say when they are wanting to retire, or need help. If I said I wanted to go in 5 years time, or needed help, but then in 2 years time there are redundancies I will be out. I will be the first person they will look at and I might not be ready to go then. That's why people are reluctant to ask for changes or a lighter job, because the first thing the company will think, there are redundancies put his name at the top of the list. I personally would not ask the company for help or let them know I'm struggling because I have no or very little

trust in this company to allow me to do it. These are relationships that don't change over a year or two. I don't think my views in this company will ever change, because of the way I have been treated over the years. So no I wouldn't think saying I have a problem would benefit me." (Operatives group 7)

"My life experience is it's the role they want completed and they don't give a monkeys who is doing it, so if you drop down tomorrow they will just get someone else. So I would imagine in most cases people would be very reluctant to say they are struggling."

"Yes they would say you can't cope with the job so bye bye, you are basically sacked." (Operatives group 6)

One focus group discussed an example where workers had volunteered information about a health and safety incident and had witnessed an unexpected negative outcome:

"You are encouraged for everyone's safety and health to come forward about any incident and we will support you and make sure it doesn't happen again. When the initiative started several people volunteered information and were disciplined. So why would I say if I was having problems, I would keep quiet." (Operatives group 7)

Some of the participants discussed that they did not trust their manager, saying any conversation they may have with their manager would not be kept confidential and they might then be subjected to ridicule by colleagues. One participant felt they were being bullied by a younger manager who they believed may feel threatened by the participant's experience and knowledge. Another participant said reporting capability changes could reduce career prospects.

"I've known an instance where somebody told their manager they had knee problems. Then a position came up and they applied for it and their manager said they were unsuitable for the role because they had a bad knee." (Operatives group 9)

Other comments (n=8) were made that participants simply would not report any issues to their manager. Some comments (n=5) were made that older workers would report problems they may be experiencing without fear of consequences.

Table 5.5   Responses to discussion on reporting culture

Group no.	Participants	Responses/comments - Many employers believe their reporting culture is poor in relation to workers reporting changes in capability ……….. Why?	
		Fear of consequences *n =*	**Yes would report** *n =*
1	Managers/Office	5	
2	Managers/Office	1	3
3	Mixed	5	
4	Operatives	5	1
5	Managers/Office		
6	Operatives	7	
7	Operatives	9	
8	Operatives	1	1
9	Operatives	4	
10	Mixed (pilot)	4	
TOTAL	**TOTAL**	**41**	**5**

During this discussion, comments (n=8) were made that under-reporting of issues could also be a result of some older workers not wanting to disclose any capability changes fearing loss of dignity; older workers may have worked for years and are proud of their performance and do not want to disclose any mental or physical declines. Others (n=3) commented that

perhaps some older workers may not even recognise that they are experiencing capability changes.

The second part of this discussion asked if participants were encouraged to report any issues. The comments confirming encouragement of reporting issues totalled n=5. Negative comments that the organisation did not encourage reporting totalled n=9.

Discussion Point 4: Hardly any organisations provided any age awareness training, do you think this would be a good idea?

There was agreement that age awareness training would be a good idea. The breakdown of comments of who should receive age awareness training are shown in Table 5.6. Some participants (n=20) agreed that it would be useful for managers to receive this training. One participant discussed a previous experience where he believed his manager offered no empathy regarding a situation and he believed if his manager had received training the outcome could have been different. Another manager discussed how it would benefit them to receive the training:

> *"As a manager you need to have that conversation about capabilities …but I do not know what to say as I have not had any training."*
> *(Manager/Office Group 1)*

As this discussion developed a higher number of comments (n=29) agreed that age awareness training should be available for everyone in the workplace. One group responded that their organisation had recently completed work on diversity, but commented that 'age diversity' was not included. Participants believed training would help allay fears about capability changes and would hopefully provide knowledge regarding potential measures organisations could pursue if someone's capability declined. Some participants believed it would help younger colleagues be more empathetic towards their older colleagues. Other participants

suggested it was important to increase knowledge, because their colleagues discussed problems amongst themselves and they would understand when an issue had become more serious and required expert intervention. Two groups of participants felt quite strongly that age awareness training should include dementia and Alzheimers disease.

> *"Knowledge about Alzheimers is important, it's about recognising signs in people you have known for a long time. Just recently I witnessed a friend deteriorating over the last 6 months and persuaded him to go to the see the doctor." (Operatives Group 9)*

One participant cautioned that following the training some people may request adjustments whether they were required or not; another participant believed that some people may feel they were being 'spied on' by their colleagues.

Table 5.6   Comments regarding age awareness training

Responses/comments - do you think age awareness training would be a good idea …..			
Group no.	**Participants**	**Yes for managers** *n =*	**Yes for everyone** *n =*
1	Managers/Office	8	5
2	Managers/Office	2	
3	Mixed		3
4	Operatives	2	2
5	Managers/Office	1	
6	Operatives		4
7	Operatives	1	3
8	Operatives	3	2
9	Operatives	2	5
10	Mixed	1	5
	TOTAL	**20**	**29**

Discussion Point 5: Older workers have a wealth of health and safety knowledge and experience. How is your knowledge captured/shared?

As can be seen in Table 5.7 comments were provided that health and safety knowledge is captured in both an informal way (n=23) and formal way (n=16). The following comment provided an example of a formalised system:

> "We write everything down, we brain dump. We have a procedure for everything." (Operatives Group 6)

Participants commented that an informal way (n=23) of sharing health and safety knowledge could take the form of mentoring newer colleagues. Mentoring takes place in all of the organisations, 100% (n=10).

> "Well I'm 61 and probably intend to go when I'm 65 and I'm mentoring the guy who works for me". (Managers/Office Group 6)

Table 5.7   Comments regarding capturing and sharing health and safety knowledge

| Group no. | Participants | Responses/comments - how is health and safety knowledge captured/shared ….. | |
		Formalised *n=*	Informal *n=*
1	Managers/Office	1	2
2	Managers/Office	5	3
3	Mixed	2	1
4	Operatives	4	1
5	Managers/Office		3
6	Operatives	2	3
7	Operatives		2
8	Operatives		1
9	Operatives	1	2
10	Mixed	1	5
	TOTAL	16	23

During the course of this discussion comments (n=14) were given that there was no succession planning (Table 5.8), so people felt there was no way to pass on their knowledge. These comments were received from 80% (n=8) of the organisations. One participant said that they were finding the lack of

succession planning very stressful in their role, as the business knowledge they retained was unique within that organisation. Other participants believed that when they left the organisation, their health and safety knowledge would be lost. During this discussion an organisation's headcount was provided as a reason why some organisations may be reluctant to employ a successor before someone had retired.

> *"There seems to be a problem with the terminology of 'headcount'… when you know someone is leaving you increase your workforce early giving them chance to train and learn the job, they naturally filter into the system. But when the company is focused only on headcount you can't employ a successor early and that puts a strain on the existing workforce, as well as all that knowledge being lost." (Mixed Group 3)*

Table 5.8   Comments regarding succession planning

Group no.	Participants	Responses/comments - how is health and safety knowledge captured/shared …..
		No succession planning, no one to pass knowledge on to *n=*
1	Managers/Office	2
2	Managers/Office	3
3	Mixed	3
4	Operatives	1
5	Managers/Office	1
6	Operatives	
7	Operatives	1
8	Operatives	
9	Operatives	2
10	Mixed	1
	TOTAL	14

Table 5.9 provides examples of other comments made during this discussion. As can be seen some of the comments are negative about a more formalised

system for capturing health and safety knowledge, while some are negative about mentoring:

> *"In my work area if a bad practice was in place 40 years ago in a buddy form, then I'm afraid that bad practice is still going to be occurring 40 years later. It's nonsense relying on buddying, it has to be structured and formal. People get killed because that's the way we have always done it." (Mixed Group 10)*

Table 5.9   Comments regarding knowledge transfer

Group no.	Participants	Specific comments
		Responses/comments - how is health and safety knowledge captured/shared …..
1	Managers/Office	· Mentoring too hit and miss to rely on
		· Some people may be better at mentoring than others
2	Managers/Office	· It's stressful having no succession planning
		· Difficult to pass knowledge on with short notice periods
3	Mixed	· Company too focused on headcount
		· Benefits early recruitment - motivator, reduces pressure
		· Reliance on 'how to manual' infers people know how to do the job already
4	Operatives	· Drifting back into information kept in people's heads
		· Mentoring a problem as no continuity
		· Even if infomation is formally captured people still doing things their own way
5	Managers/Office	
6	Operatives	· Worry if you train people up they take over
		· Think formalised systems failing at the moment
7	Operatives	· Inexperienced managers trying to formulate training manual
		· Being asked to mentor but no training manual
8	Operatives	· Knowledge transfer now too rushed, don't believe people competent
		· Not always enough manpower to train someone
9	Operatives	· Younger workers don't have enthusiasm to learn
		· Apprentices not working with experienced people, can be learning bad habits
		· Training being fast-tracked
10	Mixed	· Need structured checklist of what needs capturing
		· No point putting information in documents – it needs to be lived
		· Relying on mentoring can lead to bad practices reoccurring

***A final question was asked: Do you have any suggestions of how your
employer could help older workers?***

All focus groups, 100% (n=10), offered suggestions that the employer could
action, that may reduce risk and help older workers remain in the workplace
longer.   As Table 5.10 shows the suggestion receiving the most number of
comments (n=25) was that the employer should make sure that older
workers are all treated in a fair and consistent manner. Fairer and consistent
treatment should be helped by the second highest suggestion (n=23) that it
was essential that the organisation produced a clear policy on age, to include
options for the older worker and potential actions available to the employer,
and that this was clearly communicated to everyone.

Table **5.10   Suggestions to help older workers**

Suggestions	*n=*
Treatment and actions dealing with older worker need to be fairer/consistent	25
Need clear company policies and they need communicating	23
Flexible working or job share	22
Enhance capability questions on PDR reviews/health checks and increase health checks	13
Environment suggestions - better flooring, lighting, install lift	9
Management need better job experience/knowledge and be more respectful	8
Be able to access occupational health discretely or see independent person	8
Using worker in a different way or change career	7
Change shift times/patterns or option to come off shifts	6
More frequent breaks	6
Recruit successor before retirement (reduces strain and seen as motivational)	5
Risk Assessments and job profiling	5
Gym facilities	4
Remove time pressure work overload	4
Age balanced workforce	3
Job rotation	3
Better rest facilities	2
Discusson groups for older workers etc	2
Review equipment - one size does not fit all	2
Removing headcount as a target	2
All discussions should be confidential	2
Changing weights of items	1
Invited to training courses	1
Job manuals to pass on knowledge	1

5.4   Discussion

The participants attending the focus groups were fully engaged in the discussions and while most of the comments were in agreement irrespective of whether the group was manager or operative, some comments were clearly influenced by the participant's position within their organisation's hierarchy.

5.4.1   Summary of emergent themes

Table 5.11 shows a summary of emergent themes from the focus group discussions. While some of the items identified are similar to those in health and safety literature, other emergent themes are more relevant to human resources, leadership and culture. Therefore in order to fully understand barriers and facilitators to health and safety age management it is necessary to review across a range of disciplines applicable to the workplace.

Human resources

A frequent theme was the lack of consistency of treatment of older workers. If organisations have an age diversity policy covering older workers, this should be clarified and communicated, or if no policy exists, one should be developed. This needs to start at a senior level for policy deployment and be disseminated to local managers. Clear guidance on succession planning would also be required.

Management leadership/culture

Without a policy local management may not be looking after older workers in a fair and consistent manner. Clear guidance will also enable relevant age awareness training. Providing guidance and increasing age awareness will also hopefully eliminate some of the negative perceptions held by some managers and older workers themselves.

Health and safety

Currently any health and safety adjustments in the workplace are reported ad hoc. An age diversity policy would provide clear and consistent guidance for

health and safety personnel. Additional benefits could be improved involvement/engagement of older workers and increased health and safety knowledge transfer.

<u>Occupational health</u>

Regular health surveillance was discussed, although this was only considered necessary for certain job roles. The importance of health promotion for everyone was highlighted. Discrete access to occupational health may also be advantageous.

5.4.2 Reporting culture and adjustments

One of the key findings in chapter 4 was the employers' perception that a barrier to good health and safety management was the ineffectiveness of their organisation's reporting system with regard to workers reporting capability changes that may impact on their work. The responses from this study would seem to confirm the employers' opinion that older workers are afraid to report capability changes that may affect their health and safety at work, due to fear of what the potential consequences may be. Responses also suggest that people may not report issues because they do not trust their manager. As already discussed, Clarke (2003) believed that mutual trust will help create a positive safety culture and Langer and Miles (2016) argued that effective "confidential reporting is a key determinant of a strong safety culture."   It is vital that accurate reporting is encouraged in order to provide relevant adjustments (Popkin et al 2008, Hoonakker and Duivenbooden 2010).

During the focus groups, some participants suggested reporting issues could result in dismissal or redundancy threats. This underlying fear is consistent with the literature that a culture of redundancy, whether involuntary or voluntary, may be a way of encouraging early retirement, thus masking age discrimination practices (Loretto and White 2006, Billett et al 2011b).

Table 5.11   Summary of emergent themes

THEME	EMERGENT THEMES
Reporting culture	**Policy for the ageing workforce** - No policy or not communicated sufficiently (neither operatives or managers have seen it) - Lack of knowledge of the process and lack of clarity about proceeding with actions **Trust** - Lack of trust - managers breaching confidentiality (Data Protection Act) **Perception** - Based on previous experience : witnessed people being 'sacked' on capability grounds - Loss of dignity - Reduces career prospects - Younger managers lack empathy/not supportive/bullying **Occupational health** - No discrete access to occupational health/independent advice
Adjustments	**Policy for the ageing workforce and guidance** - Lack of policy leading to inconsistent outcomes **Fair/unfair actions** - Fair to implement but inconsistency of support between departments/gender - Problems implementing adjustments consistently when workforce are the same age **Traditional route** - Loss of opportunity for 'traditional lighter duties' - now contracted out **Health promotion** - Standard health surveillance not covering everyone - benefits of health promotion for all **Autonomy : hierarchical/job differences** - Managers empowered to make own minor adjustments - Operatives empowered to make minor adjustments only when task timing not dictated by production line **Recruitment policy/stress** - Challenges of adjustments when personnel are stressed due to being over-qualified for menial role - no career progression

Table 5.11   (continued)

THEME	EMERGENT THEMES
Age awareness training	**Improving knowledge and understanding** - Awareness on age diversity policy for everyone - Manager would be consistent in support/actions - Workers would have basics to help colleagues **Dementia/Alzheimer** - Worry that this will become more relevant - not enough knowledge **Perception** - Would change managers' views about older workers, help them be empathetic **Other training** - Older workers not being invited to all training - Older workers feeling like dinosaurs in alien IT territory
Health and safety knowledge transfer	**Succession planning** - Obstacle due to headcount targets - Lack of forward planning reduces knowledge capture - Recruitment delays puts pressure on other colleagues - Early recruitment motivational and reduces pressure on person **Perception obstacles** - Fear/reticence - transfer of their knowledge could result in them becoming surplus to requirements **Stressor** - No one to pass knowledge on to, notice period too short **Formal systems** - Positives - consistency - Negatives - not up to date **Mentoring** - Positives - Learning by doing - Negatives - Lack of continuity, passing on bad habits **Induction period** - Duration now too rushed - Unsuitable people mentoring and training **Latent redundancy of skills** - Not being trained - no new knowledge/knowledge may be out of date

Older workers in the focus groups commented that they believed it was fair that adjustments were implemented for older workers, with a high proportion believing that measures should be implemented proactively for all older workers. This would help circumvent the problem of older workers not reporting capability changes until it is too late to help. It would also assist those who may not want to admit they are experiencing capability changes or have not recognised their capabilities may have changed. Participants commented that in the past people whose capabilities had declined were 'looked after' until they retired. However over the last ten years the positions that were traditionally classed as 'lighter duties' have now been eroded. It would appear that employers are relying on the services of occupational health to detect potential problems. However comments provided during the focus groups would suggest this is problematic. For many, they have to request access to occupational health through their manager and with some saying they were distrustful of their managers, this may also be a factor inhibiting people from seeking help. Participants also highlighted that workers may now be experiencing capability declines due to previous work. These comments are in-line with research by Walker (2002) who suggested that functional ability may decrease as a result of previous work. As the workforce ages and the number of older workers increases it is important that workers feel they have a reporting channel that they are confident to use and where they will be treated with respect and empathy.

5.4.3 Health promotion

One focus group discussed the merits of their organisation's annual health and safety day where older workers were invited to undertake specific health checks. This was consistent with research conducted by Crawford et al (2010b) who noted that older workers see positive benefits of health checks. Embedding health promotion into corporate strategy (Granville and Evandrou 2010) and seeking early diagnosis of problems will benefit the health and safety of older workers (Crawford et al 2010b). However, it is vital that any health promotion initiatives are communicated effectively, otherwise they will be ineffective (Haslam et al 2013).

111

5.4.4 Diversity policy to include older workers

During the discussions a theme that was frequently mentioned was the lack of continuity when dealing with older workers. The suggestions offered by participants to help older workers remain healthy and safe at work, placed fair and consistent treatment of older workers top of the list.   This will only be achieved if organisations implement an age diversity policy that includes older workers and offer guidance on options, should capabilities change. Some mentioned that their organisation had diversity policies, but they did not include 'age diversity'. This concurs with research conducted by Loretto and White (2006) who reported that 'age equality' was not perceived as important as other diversity areas. One participant in Loretto and White (2006) research thought that age equality only tended to be championed through self-interest by older workers. They also noted that although some organisations asserted their commitment to age equality, in practice there seemed to be a preference for younger employees. Their research noted a disconnect between policy at the organisational level and what was happening in practice. Findings in the current study support Loretto and White's (2006) research, as some managers are trying to manage their subordinates' capability changes locally, in order to protect their jobs, as they believed once the capability declines were known higher in the organisation the older workers would be 'dismissed'.

Both management and operative groups commented that there was confusion over the whole process of dealing with older workers, which resulted in different adjustments offered between different departments and even different treatment according to gender. Some believed this could be the result of different experience and knowledge of the managers involved and generally showed a lack of clear leadership. Some comments cited clear breaches of confidentiality, thus breaching the Data Protection Act 1998. Managers need to be aware that when older workers discuss any physical, mental or health conditions with them, this conversation must remain confidential and information must meet the requirements under the Data Protection Act 1998 relating to 'sensitive personal data' (Data Protection Act

1998). It is also important that older workers are treated with respect. An age diversity policy that includes older workers would hopefully alleviate some of the fears surrounding reporting of changing capabilities.

5.4.5 Succession planning

It was identified that some organisations were detrimentally pre-occupied with a headcount target, when it would be more effective to be proactive with succession planning. This was believed to have an adverse effect on personnel and production performance. Discussions also highlighted potential problems with recruitment. In some instances workers being employed were overeducated for the role. While this provides potential for career progression within the organisation, in some particular roles this was not an option. Long term this mismatch has resulted in repercussions for some older workers. de Grip et al (2007) report the mismatch of job and education level can have long term effects on a workers' performance and cognitive ability.

5.4.6 Knowledge transfer

It would also appear that knowledge transfer could be improved within some organisations. Noticeable in the results was the fact that some groups failed to provide comments that their organisation actually had a formalised system for capturing and transferring knowledge.   It is important that organisations safeguard against the threat of loss of knowledge especially if large cohorts of older workers retire (Streb et al 2008).

During the discussion many commented about 'mentoring'. The general tone during these discussions and the nature of helping others was spoken about in a positive way. It was believed that older workers mentoring new and younger workers could be beneficial for knowledge sharing, but not all organisations felt it was utilised fully. Negative comments were also provided that knowledge sharing could lead to older workers becoming surplus to requirements once the training period had finished. The introduction of a training manual was suggested, which should provide a framework for continuity of knowledge capture and dissemination. Ability of mentors and

concerns about quality of information being shared was also discussed. These comments concur with research by Pollack (2012) who reported that variability in the transfer of tacit knowledge was a limitation.

5.4.7 Perceptions

While employer interviewees in the previous study (chapter 4) said older workers bring health and safety benefits to the workplace e.g. experience and knowledge, some focus group participants discussed negative experiences, especially by younger managers showing no empathy. It also appears older workers' sometimes perceive themselves negatively 'feeling like dinosaurs'. Kooji et al (2008) and Gaillard and Desmette (2010) believe negative stereotyping could impact on an older worker's motivation. As discussed in the literature review, older workers experiencing changing cognitive processing abilities may see benefit in learning new technology etc with peers (Yeatts et al 2000).   Although computer usage by those aged 50+ is in the minority, there is a steady rate of increase in users in this age group of 'silver surfers', challenging the myth that this group are reluctant to learn and adapt to new technology (Walker 2014).

5.4.8 Training

The previous study discussed in chapter 4 highlighted that organisations are placing responsibility on managers to notice capability changes and action appropriately, but they were not provided with training to support them in this. The results from this study indicate that age awareness training could help resolve some of the problems already highlighted. The focus groups were in agreement that managers should receive this training.   It should provide them with information on age management policies and how to help older workers, while at the same time reiterating the importance of maintaining confidentiality. This may help allay some of the fears raised by participants and increase reporting of changing capabilities.

Comments were also provided that it would be beneficial for everyone to receive age awareness training. The training may improve reporting as people would understand the policy and their options as their capabilities

changed. In some instances training may also help individuals manage their own minor capability changes. It may also enable older workers to assess their current role and whether they believe they could maintain the required performance in that role until retirement. Discussions highlighted that some organisations may be unaware of potential safety issues, as loyal work teams may be misguidedly protecting their older colleagues struggling with reduced capabilities. Awareness training for all employees would convey the benefits of early reporting. Specifically mentioned was the importance of including awareness training on dementia and Alzheimer's disease. Age awareness training was advocated by Ilmarinen (2006) and Schwerha (2010).

It is also important that older workers are invited to participate in job related training. This study identified that over the last couple of years invitations to older workers to attend training sessions had declined. Yeatts et al (2000) argued that long job tenure may contribute to declining or stagnation of knowledge and skills, so it is important that effective training is provided. It is vital for the health and safety of older worker that they are still participating in all types of training.

5.4.9 Suggestions

At the end of the discussion participants were asked if they had any suggestions that employers could implement that may help retain older workers, keeping them healthy and safe in the workplace. The following suggestions in Table 5.12 have been categorised into management and organisational actions, equipment and environment changes and suggestions that could help on an individual/personal basis. These have been listed according to the focus groups' preferred options. Initiatives discussed during the focus groups have also been included in Table 5.12.

Table 5.12 Workers' suggestions to help retain older workers and keep them healthy and safe

MANAGEMENT and ORGANISATIONAL
Need clear company policies and they need communicating to all workers. People want to see a fairer, consistent system.
Reducing working hours by either offering flexible working or job share.
Increase management knowledge of age related changes.
Change shift times/patterns and include option to come off shifts.
Recruit early before people retirement (this reduces strain on the older worker and is seen as positive and motivational).
Workplace assessments and job profiling - matching the task and equipment with a person's capabilities, rather than a standard assessment based on an average worker's capabilities. Involve older workers.
Remove time pressure to avoid work overload.
Age balanced workforce.
Job rotation.
Increase the frequency of health checks.
ENVIRONMENTAL and EQUIPMENT
Environment suggestions i.e. better flooring, lighting, lift facilities.
Better rest facilities with comfortable seating and a quiet area.
Changing weights of items - this will help all workers regardless of age.
INDIVIDUAL/PERSONAL
Age awareness training for all workers.
Enhance questions about capability on reviews (PDR).
Be able to access occupational health discretely or be able to access advice from an independent person.
Gym facilities.
Discussion groups for older workers.
More frequent breaks.
Invited to training courses.

5.5   Strengths and limitations of study

A strength of this study was the participants all appeared to be fully engaged and willing to discuss their views about their organisation and older workers, which resulted in a wide range of responses being captured in a relatively short duration. Selection criteria for the groups i.e. managers/office personnel and operatives from different locations within an organisation's site enabled representation of the target audience (Loughborough University 2014).   The smaller size of the groups also appeared to be beneficial, with

one person commenting that they would not have participated had the group been larger. Once a discussion question was posed, discursive interaction between participants commenced immediately (Langford and McDonagh 2003). During the introduction to the focus groups it was explained that no personal information would be required, however many of the participants felt relaxed enough with their peers to share personal information which has been beneficial, as it enabled examples to be included in this research. In total 10 focus groups were conducted. It was believed for the purposes of this research that 10 was the optimum number as it became evident comments were being repeated between groups and very little new material was generated (Bryman 2012).

Due to the number of participants required for each focus group and the duration of a group, only medium and larger manufacturing organisations were able to meet the required criteria. Another limitation was the high male dominance of the gender split of participants, therefore female representation was low at only six females. Due to background noise and similarity of accents, it was difficult to differentiate between individuals in some of the focus groups, making it impossible to identify which participant made what comment, therefore it was only possible to count number of comments rather than conduct a full analysis by participant. The above limitations may limit the generalised findings, however the findings certainly allow for further exploration to be identified.

5.6   Conclusions and next steps

The intention of this study was to explore older workers' perception of an ageing workforce and their views on the barriers identified by employers related to implementing age management strategies. Ten focus groups were conducted with participants categorised as managers/office personnel and operatives.

The findings of this study highlight the requirement for the combined involvement and coordination of resources of various departments i.e. health and safety, occupational health, human resources and operational

management, to enable older workers to remain in the workplace. It would appear that a key requirement, which needs to start at a senior level, would be either developing or clarifying a policy and guidance on older workers. Currently there is inconsistency in management and support offered and a mistrust of management and reporting systems.   This study highlighted that it could be beneficial for everyone to receive age awareness training. Discussions also highlighted that knowledge capture may be ineffective, although some organisations are utilising formal systems to capture information, informal mentoring was also discussed and problems revolving around quality and consistency of information capture were discussed. The groups offered suggestions that could help older workers remain in the workforce longer, however it would appear from discussions that employers are not drawing on this source of knowledge and experience.

The conclusions from this study highlight the complex nature of keeping older workers healthy and safe in practice. Investigation is now required to explore further older workers' personal experiences of age related changing capabilities and relevant adjustments in relation to their health and safety at work.

Chapter 6 Older workers' perceptions regarding their working circumstances (interview study)

The focus group study in chapter 5, with older workers, identified lack of knowledge about age diversity policies, or age related guidance. This appears to lead to inconsistent reporting and management support. The aim of the study presented in this chapter, is in part a validation study, but also seeks to understand older workers' personal experiences that could not be disclosed during the focus groups. This study explores older workers' perceptions regarding their health and capabilities, their perceived future in the workforce and the support they believe their organisation provides.

6.1 Aims of study

Specific research questions were to understand, from older workers' perspective, within the context of their organisation:

- Are older workers aware of their employer having any policies on age diversity, or any other related information about older workers?

- What age related conditions do older workers have that may affect their work? Where have these been reported and what adjustments have been implemented?

- What are the expectations of older workers remaining in the workforce and what are their motivations for this?

- Do older workers have any examples of safety and health promotions/measures that have been particularly helpful to them?

- How do older workers rate their employers' understanding of age related changes?

- How responsive are their employer to changing capabilities?

- Which of the age related suggestions, recommended by the focus groups, might be beneficial in keeping older workers healthy and safe in the workplace?

6.2   Methods

6.2.1   Interview schedule development

A semi-structured interview schedule was developed to address the research questions.   Three respondents were engaged to participate in pilot interviews. Following the pilot phase, minor amendments were made to some questions to improve clarity of understanding. The final interview schedule can be seen in Appendix D.

6.2.2   Sampling and data collection

The target organisations for this study were medium (50 to 249 employees) or large (over 250 employees) organisations, within the manufacturing sector, as categorised according to the Standard Industrial Classification 2007 (SIC 2007) (ONS 2014). The target population for this study were older workers (50 years of age and older), who had an active element to their job role. The active element to a role could vary from someone participating in a highly physical activity e.g. manual handling all day, to someone performing lighter activities e.g. undertaking walking around the factory, as part of their role for over an hour a day, or a mobile plant driver (fork lift trucks etc) who regularly had to access/egress their vehicle. The organisations taking part recruited the participants. Although the preference was to conduct interviews face to face, due to the locations of some organisations it was necessary to conduct some of the interviews by telephone. At the commencement of every interview participants were given a verbal summary of the research aims. The research complied with the requirements of Loughborough University Ethical Advisory Committee.

6.2.3   Data analysis

All interviews were recorded. Once interviews had been transcribed verbatim, the data were imported into qualitative data analysis software QSR NVIVO

(version 10). As the discussions were coded, themes and patterns were identified in response to the frequency of answers to key questions (Thematic Analysis).

6.3   Results

6.3.1 Organisational Information

Using convenience sampling n=50 interviews were conducted (Table 6.1). Participants were recruited from various types of manufacturing i.e. construction products, mineral processing, paper mills, food and drink. The participants were categorised according to the nature of their role i.e. managers, supervisors or operatives/skilled. Participants were also classified according to age, gender and their working time, n=48 worked full-time and n=2 worked part-time. The size of the participants' organisations were also classified, n=18 medium, n=32 large. In total n=27 face to face interviews were conducted, with a duration between 20 and 40 minutes. In total n=23 telephone interviews were conducted. Prior to the telephone interviews participants were sent information about the research and asked to consider one particular complex question, this reduced the duration of the telephone interviews to between 13 and 28 minutes.

Table 6.1   Details of participants

Role	Age		Gender
n=10 Managers	65+	n=3	n=46 Male
n=12 Supervisors	60-64	n=8	n=4 Female
n=28 Operatives/Skilled	55-59	n=20	
	50-54	n=19	

The following results only include full-time workers n=48. The part-time workers n=2 are discussed separately.

6.3.2 Question analysis

The following sections summarise the participants' responses to each question in the interview schedule.

Have they seen a policy on age diversity or any other information specifically related to older workers?

When asked whether the participants had seen any policy that included age diversity, 100% (n=48) stated they had not seen any policy. Comments were provided by participants that their organisation had implemented a diversity policy that included race, gender, religion, but stated there was nothing about age. Comments were provided, especially from the managers, that it was recognised the workforce was ageing, but to date nothing was in place and it was believed this was leading to inconsistency of the support offered by different managers and different departments.

> *"We have recognised that a lot of our workforce is ageing and we wanted to know how other manufacturing organisations were supporting the older worker. At networking events I have asked about policies and other information, but there seems to be very little."*
> *(Interview 24, Manager)*

One participant said the only thing they had noticed was an additional question on the yearly personal development review (PDR), but they felt the question was too vague to be of any use. One participant said they had seen information on a 'wind down' option, reducing the amount of days they worked before retiring. However they then said that it had been a number of years since they had heard about that option, so were unsure whether it was

still available. They commented that it was not an option available to them personally as they were a shift worker. One participant said they had seen some information on their organisation's website detailing options available for retirement. The general opinion from participants when asked this question was that it would be useful information, as it would help clarify the older workers' position with regards to their employment and options available to help them remain in the workforce.

Do they have any age related conditions that may affect their work? Have they reported the condition? Have any adjustments been implemented?

When the participants were asked if they had noticed any age related changes, 96% (n=46) said yes. While the majority stated specific changes, some only stated general aches and pains, increased fatigue, loss of flexibility or strength, or a general awareness of capability limitations. When asked if the changes may impact on their work, 14% (n=7) had already considered their capabilities and had changed jobs to allow them to continue in the workforce. One participant said their job had become less physically active which helped, however it now involved more desk based activities which were increasing stress levels. Two participants, both in their early fifties, had not noticed any age related changes to date. However one, an operative, commented that should they experience capability changes they may have to think about changing their job in the future. One manager, whose role involved substantial walking, was experiencing knee problems. While he said it was not currently affecting his job, he knew he would have problems if his role involved more physically demanding manual work.

Figure 6.1 and Table 6.2 show the analysis of participants' comments related to capability changes and health conditions being experienced. A third of participants were experiencing knee problems, 33% (n=16), followed by 30% (n=15) experiencing back problems. Given that participants all had an active

element to their role and a number of years until they retire this was causing concern. Table 6.2 highlights that 38% (n=19) participants have noticed increased fatigue. Fourteen of these participants were shift workers who had noticed declines in their ability to sleep, with some commenting that their recreational abilities have declined dramatically due to fatigue. Comments were received that fatigue increased risk both at work and commuting:

> *"One of the members of my team was at traffic lights and he fell asleep and I know that happens all the time. These are accidents waiting to happen. The company goes on about wearing PPE, but every morning people are going home and falling asleep at the wheel. Your reactions are so slow. I ride a bike and I have had a nano sleep, it's dangerous." (Interview 23, Supervisor)*

Two managers who regularly undertake international travel, said their ability to recover from jet-lag had declined. Both managers said when they were younger they would regularly work late, or work at home in the evening, but both now feel unable to sustain that workload.

One manager explained that he currently had three people suspended from driving mobile plant, due to high blood pressure. The same manager was also concerned about the health of some obese employees. He explained that one man weighed 26 stone and worked in a remote location. Should he require medical assistance, he would need to be carried on a stretcher over a kilometre. There were only four people working with him who would be able to rescue him. He also highlighted the consequences of people 'struggling through', due to their inability to retire because of financial implications:

> *"Because of the pension changes some employees are having to work longer than they are physically capable of. One of the guys has had an accident. He stumbled on some steps with no handrails and he was unable to steady himself. Instead he had to steady himself with the door jam and the door shut on his thumb. That accident was a*

consequence of his reduced mobility and age." (Interview 10, Manager)
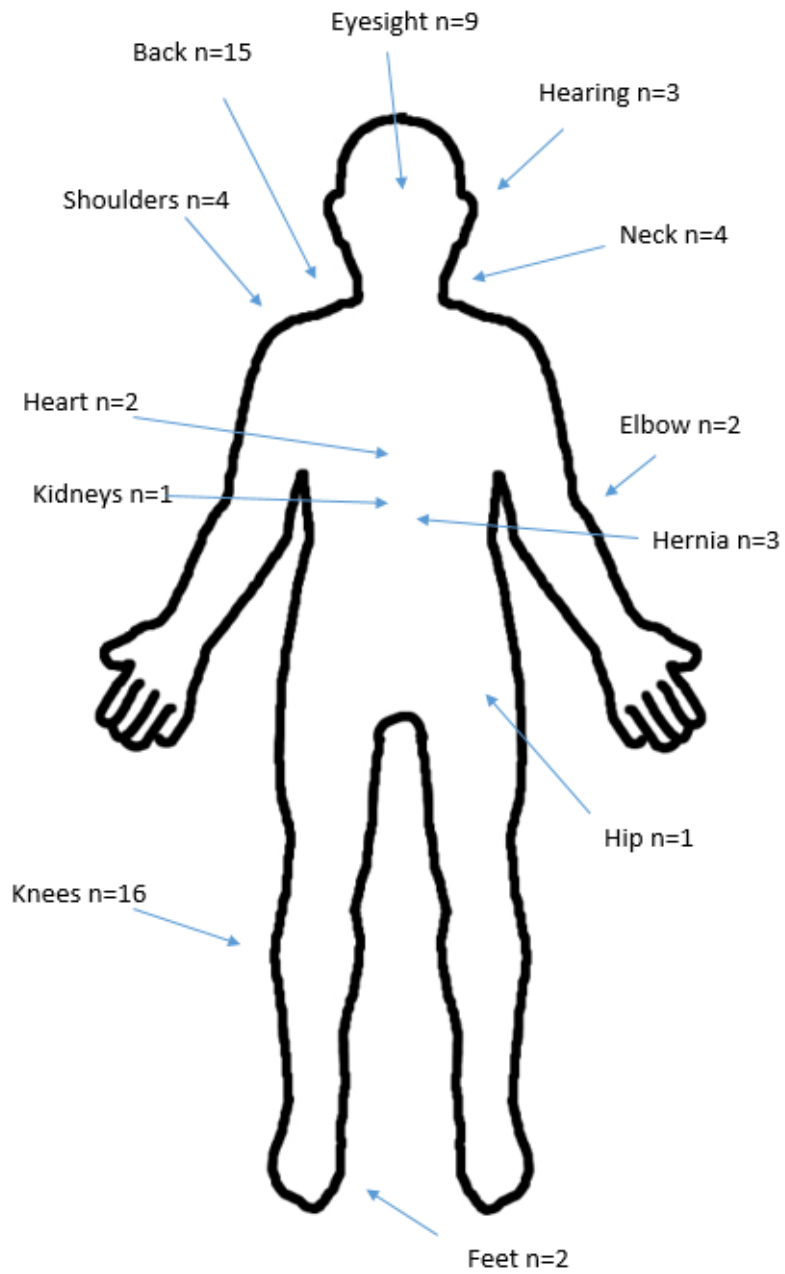
Figure 6.1   Diagram showing workers' responses about specific health conditions

Table 6.2   Details of participants' capability changes and health conditions

CONDITION	*n =*
Fatigue	19
Aches and pains	15
High blood pressure	12
Reduced flexibility and strength	8
Diabetes	6
Stress	5
High cholesterol	2
Reduced memory	2
Sleep apnoea	1
Asthma	1

While a number of participants discussed medications they were prescribed for various health issues, one participant was concerned about the side-effects of their particular medication:

> *"I have neck problems. I have had steroid injections, physio, acupuncture, its skeletal.   The surgeon says it can't be fixed. It's all a matter of managing it. They tried me on all manner of different medications. They seem to think when you get these problems you are sat at home doing nothing but resting. They put me on some medication, you had to work up to taking a higher dose, a level which was working for you. They wanted me to increase the dosage but when I got to 3 I couldn't stay awake. I told them I couldn't carry on taking them as it would affect me at work. So I stopped taking them. Now all I take is paracetamol, although it doesn't control the pain."*
> *(Interview 43, Supervisor)*

Participants were asked, if they should experience any problems with changing capabilities, who would they report them too. Following the chain of hierarchy and reporting to their line manager was the response from 29% (n=14) participants. Some participants remarked that they felt confident in discussing their capability changes, as they were financially secure. Four participants said they would not inform their line manager, as there was no trust. One participant said that the management team were fairly young and referred to the older workers as 'dinosaurs', which he found offensive. Four participants said they would inform their occupational health function when they attended health surveillance. One manager emphasised the importance of health surveillance for capturing any problems, however commented that health checks were only bi-annual and not offered to everyone, so there was a reliance on people approaching their own line managers.

When participants were asked if they had reported their health problems, 16% (n=8) said their managers knew, but two participants said that their conversation with their manager and any adjustments discussed were informal between them only. It was unclear whether occupational health knew about these health problems. Only 6% (n=3) participants specifically mentioned discussing their health problem with occupational health. For most of the participants who confirmed they had discussed their condition with their manager or occupational health, they had already been absent from work as a consequence of that particular health condition. However it would appear that some are not discussing all their capability changes that may impact on their work, only the capability issue that caused their sickness absence.

When participants were asked if their organisation had implemented any adjustments to help them, some provided examples, however for others it was a negative experience. One participant, a full-time fork lift truck driver, explained he had recently been absent from work for several weeks, due to back pain, caused by twisting while driving the fork lift truck. However when he returned to work, his manager said that no adjustments were possible. Another participant had a hernia operation, within a week his manager

contacted him requesting he return to work. The participant explained that he worked in extreme conditions and performed heavy lifting, but no adjustments were suggested. The only advice provided 'was a warning not to be absent again with that condition'. Another example is provided below:

> "I have a prolapsed disc and have had three epidural injections. I see a chiropractor once a month to keep the muscle round the bone stretched… However no adjustments have been put in place to help me. An engineer a long time ago said if I needed help lifting anything to ask, it was informal though, no one helps." (Interview 12, operative).

Some organisations had implemented adjustments, examples being changing the height that people lift to avoid excessive bending, providing knee pads and gel pads for shoes, providing anti-fatigue matting and introducing better lighting. The analysis shows that 46% (n=23) of participants are managing their own adjustments where possible.

When participants were asked why they had not reported their conditions, several believed they may experience negative consequences. One participant believed it would reduce their promotion prospects. Another participant explained that he would not report any condition, or be absent, as once two sickness absences were recorded in a 12 month period they were disciplined and faced financial penalties. This participant stated that this policy forced people to work when they were ill, resulting in them being a risk to themselves and others. One participant felt that if their age related changes started affecting their role in the future, they would not report it, but would retire (healthy worker effect). One participant said in the past he had told a manager he was having problems and asked for help, but the manager told him to stop 'whinging' and said "if you are not fit for the job you shouldn't be here". Job insecurity was cited by 16% (n=8) participants. One participant believed a lack of confidentiality inhibited workers reporting problems to occupational health, as they believed that information would be shared within their organisation without their permission.

When participants were asked if they believed there were aspects of their job that could become more challenging as they aged, 56% (n=27) believed they may face challenges (Table 6.3).

Table 6.3   Details of participants' job challenges as they age

CHALLENGES	*n =*
Musculoskeletal pain	12
Declining flexibility and strength	9
Problems related to shift work and fatigue	6
Fatigue (not shift related)	4
Time pressures	3
Inability to control Diabetes	1

How long do they think they may remain in the workforce? What is their motivation behind their decision?

One 67 year old participant discussed their motivation to remain in the workplace:

> *"Two or three reasons, one is that I felt perfectly capable of working past the state retirement age; the second is that it suited me financially to carry on working; and the third thing is that I feel physically capable and motivated to carry on and didn't see why I should have to retire. In terms of retirement it depends on my enjoyment of doing the job and my ability to do the job." (Interview 1, Manager)*

Over a third of participants, 38% (n=19), explained they had to continue working for financial reasons e.g. having to pay mortgage, new family commitments, lack of funds. Six participants enjoyed working and had no wish to retire. Early retirement was the preferred option for 56% (n=28). Some participants believed they were physically or mentally incapable of continuing in their role as their job was too demanding. One participant wanted to retire early while they still had fairly good health. Some participants would prefer the option of reducing their working hours.

Had they seen any examples of health and safety promotions/measures that could be particularly helpful for older workers?

Participants discussed promotions/measures that had been beneficial to them (Table 6.4). The benefits of access to medical health checks, either mandatory or voluntary, were cited by a number of participants, with some saying they relied on the results instead of visiting their own doctor. Some participants explained that access to health checks was not available to all employees. The frequency of health checks varied between one and three years, with one participant saying it was five years since he had undertaken any health check. One participant had a bi-annual health check with an external health organisation and the results were confidential, it was his decision whether his employer was provided with any information. A number of participants felt that the health checks should be conducted on a more frequent basis as "people tend to change fairly quickly as they get older". Many thought the general health checks should be available for everyone as they aged, rather than just for certain safety critical jobs e.g. driving mobile plant, working in confined spaces etc. One participant discussed a 'self-check' machine their organisation had provided on a temporary basis. The participant had regularly used the machine to measure their BMI, weight, and blood pressure.

> *"There are well-being initiatives here, things like checking cholesterol levels, information about drinking and smoking. The occupational*

health advisor took blood tests for cholesterol levels, but unfortunately there was only a limited number of slots, so not everyone could go. People I spoke to afterwards thought it was great." (Interview 24, Manager)

One participant explained their organisation had implemented an external help line that employees could use for general advice. They thought this would be beneficial as they believed people were now facing increased pressures both from work and home. One participant discussed the cycle to work scheme their organisation had implemented. They believed this was now encouraging people to be more active. The organisation also held a competition with a bicycle as a prize. Cycling habits were regularly discussed during break times and the participant had noticed older colleagues becoming healthier as a result. However another participant was critical about the scheme. He worked shifts and had a 15 mile commute, so could not see any benefits for him.

One of the participants discussed an online questionnaire available to all employees asking about a person's chronological age, weight, work and health. This returned an 'actual' age scenario. They said this had been quite useful in reminding them of the importance of diet and exercise. Their organisation published the statistics. However it would appear only employees who had a 'computer based' element to their role had access to the questionnaire, so many of the employees who could benefit from this information were excluded.

Three participants commented that some measures 'could be patronising'.

Table 6.4   Measures older workers found beneficial

PROMOTIONS	n =
Health checks (mandatory and voluntary)	8
Information on healthy eating	6
Leaflets on bowel cancer, testicular cancer and blood pressure	5
Flu jabs for older workers	2
Information on importance of exercise as people age	2
Discounted private health insurance	1
External sports therapist appointments	1
Pension workshops	1
Machine readily available to test BMI, weight, blood pressure	1
Advice/help line	1
Cycle to work scheme	1
Online health questionnaire	1

How would they rate their employers' understanding of any potential changes/challenges that may impact on an older worker should their capabilities change?

As shown in Figure 6.2, 33% (n=16) participants believed their employer had good/very good understanding of potential ageing changes. Participants were then asked why they believed their employers' understanding was good/very good. Some participants felt that awareness had increased as the average age of the workforce had increased, with many employees now over 55 years. One participant believed their organisation was good, citing the health checks and general information available. Most participants seemed to base their score on 'things they had heard', rather than personal

experience. One participant felt their employers understanding was good, but their ability to translate that into action was poor.

As shown in Figure 6.2, 38% (n=19) participants felt their employers' understanding was very poor/poor. Participants' views were based on their perception that the employer paid them to perform certain tasks and their age and capability was not considered when allocating tasks. Some believed there was no opportunity to change roles. One participant believed their organisation was only interested in being 'legally compliant' rather than being supportive and 'going the extra mile'. One participant said:

> "There is no formal policy or guidance on to how we deal with this particular problem, it is based very much on an ad hoc basis. I am aware that the employer is very sympathetic, if they are aware of people being seriously ill, things like cancer, then HR and management are very sympathetic in terms of time off … but that is following illness on a short-term basis, not a permanent problem. It's all reactive rather than proactive." (Interview 1, Manager)

As shown in Figure 6.2, 26% (n=13) felt unable to provide a rating on their employers' understanding, so chose neutral. Participants doubted their employer had recognised issues surrounding an ageing workforce, with some expressing concern that nothing had been planned. One participant said his line manager was understanding, but they lacked confidence in more senior personnel.

Figure 6.2 shows a horizontal bar chart titled "How would you rate your employers' understanding of any potential changes/challenges that may impact an an older worker as their capablities may change?" with the following values:

- Very Good: 2
- Good: 16
- Neutral: 13
- Poor: 16
- Very Poor: 3
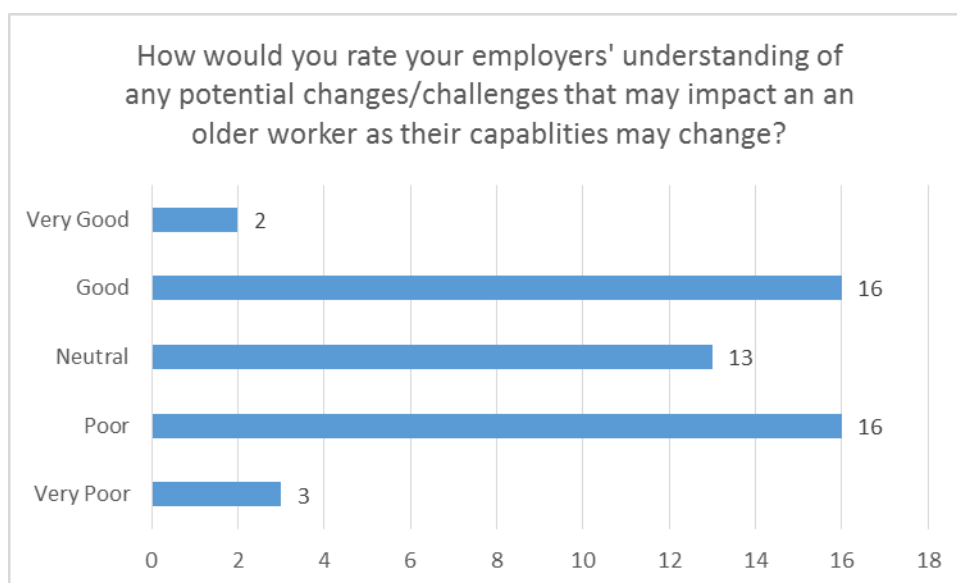
Figure 6.2 Analysis of employers' understanding of potential changes/challenges as capabilities change

How helpful and fair do they think their employer would be if older workers experienced capability changes that could impact on their ability to perform their role?

As shown in Figure 6.3, 45% (n=22) participants believed their employer would be helpful/fair should their capabilities change. Two participants based their rating on personal experience; one participant, following diagnosis of diabetes had found their employer to be very supportive; another participant had been provided with additional help when lifting tasks were required. For some participants their opinion was based on 'things they had heard'; redeployment which could entail downgrading of position to 'lighter duties', or redundancy package rather than 'sacking'.   Two participants provided examples:

> A cleaner had a deteriorating illness and they would eventually be
> wheelchair bound. They had problems with balance, especially in

poor lighting. The company assessed the role and control measures included:

- Instead of carrying the hoover up to every floor, suction pipes were rigged on each floor.
- In case lighting failed, a head torch was provided.

An employee had a hip replacement and following their return to work they were provided with a new chair and foot rest.

One participant said:

"This employer is well known for saying that people are its most important asset and they do not want to get to the situation where the workers think they are a bad employer. However they are reactive rather than being proactive, they do not go looking for problems, but if problems come to them they will do something about it." (Interview 1 Manager)

As shown in Figure 6.3, 28% (n=14) of participants responded that their employer would be (very) unhelpful/unfair. Participants believed no alternatives or adjustments would be offered if people were finding tasks challenging. They stated that neither role, nor tasks assessments considered workers' capabilities. Some participants believed their employer would seek medical advice and then 'manage them out of the business on capability grounds'.

Two participants stated the following:

"Virtually everyone works 12 hour shifts and lighter duties are virtually none existent. If you said you had a problem you could end up putting

yourself out of a job. Some colleagues do not report problems because of that."   (Interview 36, operative)

"During a public meeting with HR a couple of years ago, they said if you could not do your job, well that's the job we pay you to do, you are out. It's difficult to retract things like that. So people keep quite.   But then it becomes a safety issue as well as a productivity issue."
(Interview 46, supervisor)

As shown in Figure 6.3, 24% (n=12) participants provided a neutral rating saying they had no experiences on which to base a definite rating.
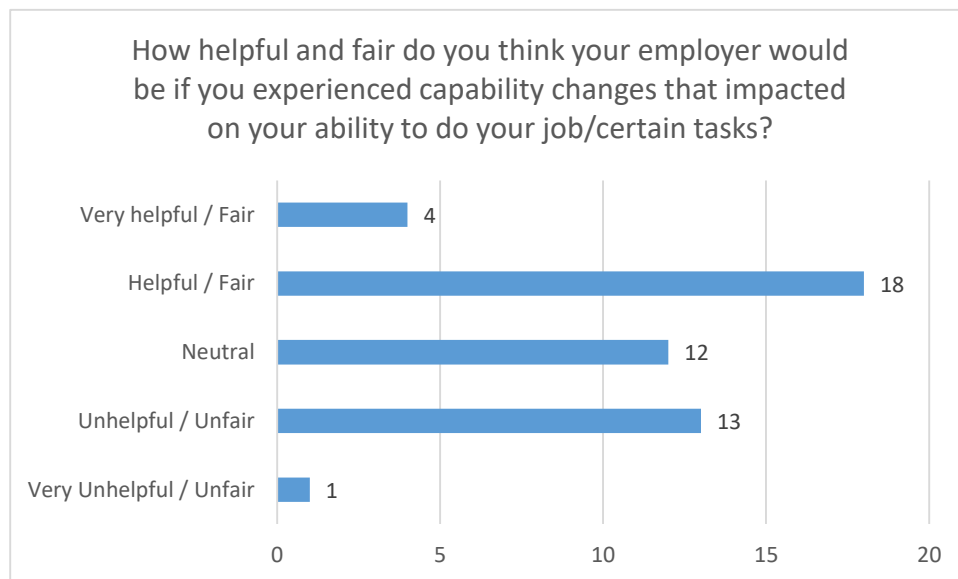
Figure 6.3   Perceptions of how helpful/fair an employer would be if workers' capabilities changed that impacted on their job

Which age related suggestions do they believe would be beneficial to help them remain healthy and safe in the workplace?

Participants were shown the list of 20 suggestions (Appendix D) provided by the focus groups. They were asked to choose and rank the five options most

relevant for them. The suggestion receiving the highest number of first choice responses was to increase the frequency of health checks. Further analysis was undertaken to determine the ranking order of options that were chosen in the participants' top five. Table 6.5 shows the complete ranking order list. As can be seen in Table 6.5 the most popular choice appearing in participants' top five was that organisations recruit a successor earlier before the older worker has retired. Comments were made that organisations lacked robust succession planning. This was a problem when short notice periods were coupled with long recruitment processes. This was having a profound effect on the organisations' productivity, as well as causing additional stress and work pressures for the remaining workforce who were having to complete extra tasks and train new members. A further concern was the loss of knowledge that was not transferred to the role successor. The suggestion receiving the second highest number of responses was the option to reduce working hours, either by flexible working, part-time or job sharing. It appeared that some organisations may offer this option, but it was not available to all employees. The suggestion receiving the third highest response was to increase the frequency of health checks. The suggestion receiving the fourth highest response was providing people with an opportunity to move to day working instead of working shifts.

When reviewing the choices, 19% (n=9) chose the importance of both risk assessments which were based on the actual person performing the task and ergonomics assessments highlighting the importance of equipment/person comfort, as part of their top five. Looking at the roles of the participants who believed the workplace assessments were important, n=2 were managers, n=2 supervisors and n=5 were operatives. Participants expressed concern that neither of these assessments considered changing capabilities of older workers. One participant said that the workplace assessments were all based on a younger worker. The participant said they had been performing the same task for over 20 years, but the risk assessments had not been changed, yet his capabilities, the work environment and equipment had all deteriorated during that time.

Table 6.5   Participants' order of suggestions by preference to help them remain in the workplace heathy and safe

	Participants' preferences
1st	Recruit early before people retire
2nd	Option to reduce working hours
3rd	Increase frequency of health checks
4th	Option to come off shifts or change shift patterns
5th	Ergonomics assessments
	Remove time pressures to avoid work overload
7th	Risk/Task assessments (job profiling)
8th	Age diversity policy
	Age balanced workforce
10th	Access occupational health discretely
11th	Job rotation
12th	More frequent breaks
13th	Gym facilities
14th	Install a lift
	Better rest facilities (comfortable seating/quiet areas)
	Reduce weights of some items
17th	Invited to training courses
18th	Better flooring
	Better lighting
	Enhance questions about capability on reviews (PDR)

6.3.3   Responses from part-time staff

Two female participants worked part-time 2 hours per day. Both had remained in the workplace past the traditional retirement age, being 68 and 71 years old. During the telephone interview one of the participants appeared nervous and did not want to elaborate on her responses, meaning the data was limited.

When the participants were asked whether their organisation had implemented any adjustments to help the older worker one discussed adjustments to help cleaners avoid climbing and carrying equipment upstairs. Additional cleaning teams had been recruited to work on different floors. It

would appear these changes were implemented following an accident. When asking the participants which suggestions may help them, both said their organisation providing a clear policy would beneficial. Both said this was the only option that would be relevant to them because they worked a small number of hours a day. Both intended to keep working as long as possible as they both enjoyed work, with one participant adding that it "kept her aching joints mobile".

6.3.4 Summary of emergent themes

Table 6.6 shows a summary of emergent themes from the individual worker interviews and also builds on the emerging themes discussed in the focus groups in chapter 5.

6.4 Discussion

This study was in part a validation study and also provided another level of richness to data that could not be provided during the focus groups (disclosure of personal experiences).

Over half of the participants in this interview study were not convinced that their employer understood capability changes and challenges that may impact older workers. When participants were asked how helpful and fair they believed their employer would be, just over half were unconvinced that their employer would help, should their capability changes impact on their ability to perform their job.

6.4.1 Age diversity policy and related information

When participants were asked whether their organisation had an age diversity policy many responded that they were aware of diversity policies regarding gender, race and ethnicity, but had seen no policy referring to age and older workers. Under the Equality Act 2010 age is a protected characteristic, with age discrimination unlawful (Equality Act 2010).

Table 6.6 Emergent themes from worker interviews

THEME	EMERGENT THEMES
Reporting culture	**Capability changes** - Primarily only those whose conditions have necessitated sickness absence have discussed their changes with their organisation - Those more financially secure (better pensions) are more likely to report problems - Due to fear of 'sacking' on capability grounds some workers are exposing themselves to greater risk and putting their colleagues at additional risk **Lack of trust** - Managers unsympathetic - HR's negative comments regarding capability **Healthy worker effect** - Some workers retiring rather than asking for help related to capability declines **Financial implications** - Sickness Absence - some inhibited from taking sickness absence due to financial penalties, so continue working when they are experiencing pain **Medication** - Some medication causes side-effects which may inhibit people from taking it, resulting in them experiencing pain during working hours
Adjustments	**Policy and guidance that includes older workers** - 100% participants have not seen a policy – this would provide information for consistent management **Workplace assessments** - Written for younger workers - May be out of date **Implementation** - Some examples provided, however inconsistent implementation with some workers returning to work and having no adjustments **Equipment** - In some instances equipment is available (e.g. lifting aids) however this is having a negative effect for those who have to then lift on an ad hoc basis as they no longer have the muscle strength

Table 6.6 (continued)

THEME	EMERGENT THEMES
Health and safety promotion	**Health checks** - Positive responses but frequency needs reviewing - Benefits of availability for everyone **Other beneficial initiatives/measures** - Leaflets - Information on healthy eating - Information on importance of exercise as people age - Flu jabs - Computer based information - although not available for all 'active' employees only 'computer based' workers
Second career	**Role changes** - Proactively changing role in order to remain in workforce longer
Suggestions to help workers remain in workplace healthy and safe	**Part-time/full-time** - Different options may be required for different working schedules **Favoured options** - Recruit early – beneficial to both organisation and employees - Option to reduce working hours - Increase frequency of health checks - Option to stop shift working
Capability changes	**Environmental challenges** - Temperature – increased fatigue when extremely hot or cold. Older workers may feel colder as age so require additional clothing - Lighting – reduction in vision with reduced lighting - Hard surfaces – causing increased knee/foot problems **Work schedules** - Problems with shifts – more fatigued causing additional risk both at work and commuting **Employee perception** - 64% unconvinced their organisation understands about the changes/challenges that may impact an older worker - 52% unconvinced that their employer would be fair and helpful should their capability changes impact on their ability to do their job **Future potential problems** - More than half believe their job could become more challenging in the future

Table 6.6   (continued)

THEME	EMERGENT THEMES
Retirement	**Early retirement** - Majority would like to retire early due to physical or mental challenges of their role
	Keep working - Some wanted to retire early but have to keep working due to financial insecurity

However, lawful discrimination is permitted in limited circumstances, for example, changes to a workplace to ensure older workers are safe and can remain in work (HSE 2014e); or positive age discrimination such as offering flu jabs to older workers. Many participants discussed inconsistencies within their organisation regarding management and support of older workers. Without this key policy and guidance, older workers may continue to experience differing treatment from different managers.

6.4.2   Reporting and adjustments

A consistent finding was that participants were under-reporting age related health and capability issues that could impact on their work. For the majority of participants, lack of trust in management, inconsistencies in management support, or financial insecurity were cited as reasons for not reporting. Previous research has noted that employers who do not support their older workers could face increased injuries (Silverstein 2008) and there is correlation between positive support and work ability (Ilmarinen et al 2005, Knauth et al 2005). Inaccurate reporting of conditions will limit the employers' ability to identify and implement adjustments (Hoonakker and Duivenbooden 2010).

More than half of the participants believed their job could become more challenging in the future. Some participants thought if their capabilities changed they would rather retire than ask their organisation for help. These findings concur with Kenny et al (2008), who reported that many studies evaluating age and work capabilities encountered the 'healthy worker effect'.

Some participants stated that they would have to remain in the workforce, even if their capabilities declined to such an extent that they were struggling to undertake their role. Other participants had already considered their abilities and changed career to a less demanding role.

While some participants provided examples of adjustments that had been implemented, others believed the workplace assessment process needed improving to help older workers. Participants believed that tasks and equipment were assessed and focused on younger workers. It also appeared the assessment reviews were ineffective. This finding aligns with Streb et al (2008), who raised concerns that many workplaces were still being designed for physically capable younger workers. It is a legal requirement to conduct risk assessments, although the HSE's view is that "a separate risk assessment for older workers is not required (HSE, 2014e, EU-OSHA 2016b). However the interviews with older workers have highlighted that while risk assessments have been undertaken, they have not considered additional age related risks, leaving some older workers vulnerable.   An 'age friendly' workplace will include products and work environments that have a 'universal design', meeting the requirements of all age groups (Silverstein 2008). This would also prevent or slow any potential work related declines in younger workers as they age (Silverstein 2008). However Streb et al (2008) discussed significant cost burdens that organisations may face with the potential increased numbers of employees requiring adjustments and constraints placed on their performance. In a report by Eurofound (2012) it was noted that regular discussions with older workers about their development, aspirations and plans could help address concerns. This report suggested that managers required training on how to be effective when managing and supporting older workers.

6.4.3 Promoting health and safety - favoured options

Participants discussed various measures they believed would be beneficial to help them remain in the workplace. A list of measures was collated, with the intention that these could be used to inform a good practice guide. Many participants believed that employers promoting health and safety demonstrated the value the organisation placed on its workers. These findings are similar to a previous study conducted by Naumanen (2006) which identified that 90% of respondents believed health promotion led to increased work ability and motivation. When the participants were asked which actions they believed would be beneficial to their future working lives the full-time workers all provided five options they believed would help them. However the two part-time workers only chose one option commenting that they did not believe any additional changes would be beneficial. Although the part-time workers were under-represented in this study further research could be undertaken to establish whether different options are required for those working part-time hours.

The suggestion receiving the highest number of first choice responses was to increase the frequency of health checks. However frequency of health checks varied between organisations and some participants commented that they were unsure when their next health check would be undertaken. Other participants said that they did not receive any health checks. Capabilities can deteriorate with increasing age and as stated in the literature review, previous research has identified that older workers see benefits of health checks (Crawford et al 2010b).

Participants identified working schedules as a key problem. Many participants would like the option of reducing their working hours, which they believe would enable them to remain in the workforce. Previous research has identified that offering flexible working practices, enhanced breaks or redeployment could enable older workers to remain in the workforce (Knauth et al 2005, Johnson et al 2011, Haslam et al 2013). Shift working was also problematic, but many commented that there was no option for them to

reduce their hours, or stop working shifts. Participants discussed their increasing fatigue while working shifts, with one commenting that he and his colleagues were at increased risk commuting following a night shift. Previous research has analysed the effects of shift work and identified increasing intolerance to night shifts as workers age (Costa 2005, Costa and Sartori 2007, Bohle et al 2010). The shift patterns interfere with circadian rhythms which can expose older workers to increased risk of accidents and health disorders (Costa and Sartori 2007, Bohle et al 2010, Williamson et al 2011). Fatigue related and insomnia-type sleep disturbances are known to be a safety hazard, as well as linked to reduced productivity (Dawson et al 2012, Kucharczyk et al 2012). Typically fatigue management is seen as a joint responsibility, with organisations providing a work pattern that allows sufficient sleep and workers having responsibility to maximise the potential for sleep (Gander et al 2011, Darwent et al 2015). However weaknesses in organisations working times generally do not take account of the demands of the daily circadian clock, sleep debt or commuting (Gander et al 2011). When Folkard and Tucker (2003) reviewed shift work studies they concluded that the overall risk depended on the length of shifts, number of successive nights and frequency of rest breaks.

Participants also explained that their increased fatigue reduced their ability to undertake hobbies and socialise. This supports research conducted by Zimberg et al (2012) which stated that individuals may be more likely to engage in sedentary behaviours e.g. watching television, rather than physical activities, due to excessive daytime fatigue. This sedentary behaviour will then have a further impact on their health, as noted by Givens et al (2015) who found that shift workers were more likely to be overweight. The current study found that unless interviewees had undertaken a return-to-work following absence, many issues were under reported. This is true for fatigue, with the consequence that fatigue management does not appear to be included on risk assessments, yet they can have implications for the entire workforce (Kucharczyk et al 2011).

Many believed succession planning should be a priority, with organisations recruiting early. This was believed to be beneficial both for the organisation and also the older worker, but it was believed financial implications may curtail this option. Measures should be considered carefully, as some participants believed that initiatives their organisation had introduced were 'patronising' to older workers.

6.4.4 Individuals - retirement

A high percentage of participants responded that they would like to retire early due to the physical or mental challenges of their role. However some commented that financial implications may restrict this option and mean that they will have to continue working even when their health conditions are not conducive to performing their role. For some the preferred option was to continue working. Three participants had continued working past the traditional state retirement age and were enjoying work and the additional finances that employment provided.

6.5   Strengths and limitations of study

All the participants were fully engaged during the interviews, apart from one part-time worker who appeared nervous and uncommunicative. Although all the participants worked within the manufacturing sector, the type of manufacturing undertaken varied (food and drink, construction products, minerals processing, paper mills). However most of the comments showed similarity in response irrespective of type of manufacturing undertaken.

A limitation of the study was under representation of female participants. This male bias may limit the results for a wider population, however this study provided generalizable results for males in active roles within manufacturing. A further limitation was the low number of part-time workers. This was not a representative sample and further research could be conducted on possible differences between part-time and full-time older workers.

6.6   Conclusions and next steps

The intention of this study was to explore older workers' perception regarding their health and capabilities, their future in the workforce and the support they believe their organisation provides.

The findings of this study concur and expand upon the findings from the previous focus group study (chapter 5) and suggest that there is a requirement for combined involvement and coordination of various departments i.e. health and safety, occupational health, human resources and operational management, in order to help older workers remain in the workplace healthy and safe. The findings validate those of the previous study (chapter 5), indicating the importance of organisations developing an age diversity policy and providing guidance on managing older workers.

Older workers are not convinced that their organisations understand the changes in age related capabilities and how they may impact on a person's ability to perform their role. Many believe that their organisation would be unhelpful and inconsistent should their capabilities change. This perception, coupled with lack of trust in management and concerns surrounding security of employment, is inhibiting older workers from reporting issues and seeking help. The majority of older workers interviewed are making their own adjustments to try to remain in the workforce. When making adjustments, employers will have to balance any financial considerations and possible constraints on productivity, with the benefits of keeping older workers in the workforce. However many believe that their changing capabilities could cause future problems and many are hoping to retire early due to the physical and mental challenges of their role. Some older workers have considered their options and commenced less physically demanding jobs, which for some involved reduced wages. Others have intimated they will retire before seeking adjustments, resulting in the 'healthy worker effect'.

It would appear that employers are not fully engaging with older workers in order to understand their requirements. Workplace assessments are

ineffective, as they are not 'age sensitive' and are not reviewed appropriately. While many positive responses about health promotion and examples were provided, a small number still felt their employer was 'patronising' in their communication and initiative choices.

The conclusions from both this study and the previous focus group investigation suggest further investigation is desirable to explore whether research can help organisations understand their strengths and weaknesses around health and safety age management.

Chapter 7   Employers and worker representatives' perceptions regarding good practice health and safety measures for older workers (interview study)

Previous studies in this thesis have indicated that older workers do not believe that their employers understand age related health and capability changes and they consider that their employers do not offer supportive management to enable older workers to continue in the workforce. In the previous studies, participants provided suggestions that they believed could help them remain healthy and safe in the workforce for longer. These suggestions have been combined with findings from literature to identify a list of good practice health and safety measures to help older workers. These suggestions fell under the following headings:

- Policy
- Work environment
- Work scheduling
- Recruitment/succession planning
- Training/workshops
- Reporting of capability changes
- Participation and engagement
- Health promotion
- Workplace assessments/controls

The study presented in this chapter explored management and organisational measures that could help promote and protect the health and safety of older workers and to understand whether these measures might be achievable.

7.1 Aims of study

This study engaged with key representatives in organisations to address the following questions:

- What would prompt their organisation to implement additional measures to help protect and promote the health and safety of older workers?
- Would the good practice measures be of value and achievable to help protect and promote the health and safety of older workers?
- What obstacles might there be to implementing the measures?

7.2 Methods

7.2.1 Interview schedule development

A semi-structured interview schedule was developed, together with a list of good practice health and safety measures compiled from the three previous studies and the literature.   It was considered that semi-structured interviews would offer more flexibility to allow for probing and for participants to expand on their answers. Semi-structured interviews also allowed for changes to question order and only a selection of questions to be asked dependent on the course of the interview (Gray 2011).

Pilot interviews were undertaken with two participants. Following this pilot, amendments were made to reduce the number of initiative examples, due to interview time constraints. The final interview schedule can be seen in Appendix E.

7.2.2 Sampling and data collection

The previous two studies, consisting of focus groups and interviews, were conducted in large and medium size organisations within the manufacturing sector. To remain consistent the target organisations for this study was also medium (50 to 249 employees) or large (over 250 employees) organisations

within the manufacturing sector as categorised according to the Standard Industrial Classification 2007 (SIC 2007) (ONS 2014). Within each organisation the target respondents for this study were senior management representatives from each of the following functions: health and safety (HS), human resources (HR), and operations (Ops). A fourth person within each organisation was also included representing the workers (WR). The organisations taking part recruited the participants. Although the preference was to conduct interviews face to face, due to the locations of some organisations it was necessary to conduct some of the interviews by telephone. The research complied with the requirements of Loughborough University Ethical Advisory Committee.

7.2.3 Data analysis

All interviews were recorded and once they had been fully transcribed the data were imported into qualitative data analysis software QSR NVIVO (version 10). As the discussions were coded, themes and patterns were identified in response to the frequency of answers to key questions (Thematic Analysis).

7.3 Results

7.3.1 Organisational information

Using convenience sampling, interviews were conducted in four organisations (two large, two medium). Three organisations conducted their activities over multiple sites, providing a wide geographical spread. The organisations were classified as manufacturing, covering the following activities: mining, quarrying, foundries, products for construction, specialist products for industry, logistics (warehousing and haulage).

The total number of interviews conducted was n=18, comprising of n=10 telephone interviews and n=8 face to face interviews (this included two pilot interviews which have been included in the results).   Both pilot interviews were conducted within one of the large organisations.

7.3.2 Question analysis

The following sections summarise participants' responses to the interview questions.

What would prompt your organisation to implement additional approaches/measures to help protect and promote the health and safety of older workers?

Proactive responses

Two participants (H&S and Ops) recognised the importance of measures that helped to keep older workers' expertise in the workplace as long as possible. One then explained that their organisation's current business plan for the year included wellbeing and the older worker. Another participant (Ops) stated that they were trying to engage with older workers to understand what would help. Two participants (both H&S) thought their organisations participating in this research may prompt new measures to help their older workers.

Reactive responses

Four participants (2xH&S, 2xWR) believed additional approaches/measures would only be implemented following incidents/accidents. If absence levels increased or an older worker experienced capability issues, measures would be implemented on an individual basis (3xHR). One participant (HR) stated that because of the fear of discrimination, they would only implement actions for an individual once there was an issue. They did not believe there were any benefits in implementing 'blanket' measures for all older workers. Another participant (HR) explained that although they recognised there were problems, most older workers currently had a defined pension so generally retired early if they experienced problems. One participant (WR) hoped that any issues older workers were experiencing would be identified during medical checks. One participant (WR) thought that additional approaches/measures would only be implemented once the average age of

their workforce increased. One participant (Ops) believed that additional measures would be implemented if barriers were identified during the recruitment process. One participant (Ops) believed there was a 'disconnect' between the measures already implemented and what older workers actually needed.

Suggestions of good practice health and safety approaches/measures for discussion

Participants were taken through a selection of approaches/measures and asked whether they believed they would be useful and achievable within their organisation, or if they felt there could be challenges to implementation.

Age Diversity policy

All participants were invited to comment on whether an age diversity policy and guidance would be helpful within their organisation and achievable, or could they anticipate problems with implementation. Twelve participants responded that an age diversity policy and guidance would be beneficial. There was a belief that a policy would provide a framework which would enable continuity of management support and thus build confidence amongst workers.

> *"Because there isn't a policy, where do you go, well you either fly by the seat of your pants, which is risky, or you use some other network where you ask people, the grapevine and that's where I have to go…It would definitely be helpful." Ops*

Four participants (HR, H&S, 2xOps) said it could be useful, but then highlighted barriers to implementation. Concern was raised about possible risks to the business implementing a policy.

"… Given that we already have a plethora of policies and procedures I wouldn't want something else that someone could potentially beat us over the head with… I think if there was something in black and white it might be perceived that there was slack in the organisation and will be responded to in a certain way, but that's not always possible…"
HR

One participant (Ops) was unsure and said they were "open to discussion".

<u>Work environment</u>
Although various aspects of the work environment have been raised as potential concerns should capability changes be experienced, during this study it was only possible to explore two represented aspects of the work environment i.e. lighting and flooring. The participants from a range of backgrounds (H&S, Ops, WR) that responded all said that their organisation maintained lighting and flooring, but had not considered any additional requirements for older workers. Participants said there was a reliance on workers reporting any problems, however one participant (H&S) did not think that older workers would report issues.

Five participants (3xOps, H&S, WR) commented that lighting improvements had been made with LED lighting installed. One commented that the lighting could sometimes be uncomfortable, due to the brightness. However participants felt these changes were a result of cost and energy savings, rather than based on an assessment of workers requirements.

> *"We do have a lux survey and have a rolling programme that's started in our worst area and we are removing our fluorescent tubes and increasingly replacing them with LED lights. If I'm brutally honest it's being driven by cost as they are more energy efficient and last longer. But they will hopefully help the older worker." Ops*

Four participants (2xH&S, 2xOps) responded that there were areas where lighting may be inadequate, with two participants (H&S, Ops) saying they would review their assessments following the interview.

Two participants (H&S, WR) from the same organisation raised challenges of maintaining good flooring. Although maintenance checks were conducted, there were difficulties of maintaining flooring, due to the immense size of the site. Another participant said the problem with maintaining good flooring was:

> *"You can look visually but can't always see a problem…" Pilot H&S*

One participant (H&S) discussed problems with control measures they had introduced, where anti-fatigue matting had become a trip hazard. They also commented on footwear and said they should consider providing additional guidance for different footwear options for older workers who may require more foot/ankle support.

Participants were also asked whether they believed quiet rest facilities would be useful. Only one organisation had installed a quiet rest room, but no door had been fitted and the room was sited next to a noisy corridor. During the interviews three of the participants (H&S, Ops, WR) talked about how easy it would be to rectify this. In another organisation a participant (WR) said workers had to sit in their car if they wanted quiet time. At another organisation a participant (Ops) explained that each department had their own rest rooms, but these had not been designated as quiet rooms. Participants from one of the large organisation raised challenges to a quiet room. One participant (H&S) said that their rest facilities were generally based on a cafeteria model and they did not believe providing additional rest facilities made business sense, due to additional costs for cleaning and maintenance. Another participant (Ops) discussed possible policy and legal issues:

"I can see there may be some guys who want to be quiet in their break times and don't want the chatter, but we don't have that facility. We are not allowed to close our eyes down the mine, sleeping is against the law… It is a bit of an awkward area, I don't know what you could do, the policy is you are not allowed to sleep, and what's the difference between resting with your eyes shut and sleeping." Ops

Work scheduling

Participants were asked whether workers could change their working hours, job share or participate in flexible working. Participants from a range of backgrounds viewed the options positively, both from a worker and business position, but admitted their organisation did not currently offer these choices. One participant (HR) said that currently these options were predominantly used by women in an office environment and not in operations. They said it would require a change in mindset of their managers to "think outside the box". One participant (Ops) said the decision would only work if there was a business justification for changing working hours, rather than just to help the worker personally. Headcount issues and associated additional costs were cited by some participants as to why these options may not offered. One participant (Ops) discussed problems where jobs involved travel, saying this would limit flexible and part-time options. One participant (HR) provided a recent example where their organisation suggested an employee work part-time rather than losing them. They believed by providing this option it may have extended that persons working life by another 5 years. The participant said "we were prepared to flex and it was a win-win".

Participants were also asked about redeployment options and whether older workers had the option to stop working shifts. The availability of suitable vacancies was an issue, with some skills only being relevant to shift positions. Personal finances were also quoted as a reason why people may be hesitant to leave shifts, even if they were experiencing problems.

Succession planning and exit interviews

It was identified in earlier studies that valuable health and safety knowledge can be lost if organisations do not have succession plans. It was also highlighted that delaying recruitment can put extra pressure on other colleagues who may have to perform additional duties should an older worker retire before the recruitment process is complete.

As part of this study participants were asked about their organisation's recruitment process and whether consideration was given to employing successors early before people retire. One large organisation has recently commenced a succession planning project, which they believe will benefit their organisation in many ways. Previously their recruitment process was causing delays which resulted in a person having retired before a successor was employed. One consequence of this was that health and safety knowledge was being lost. One participant (Ops) said they were also aware that a person's performance declined in their last 3 months of work, so by recruiting early productivity performance could be maintained. The participant said that if this initiative is presented positively older workers will be happy to be open in discussing when they may wish to retire. Another participant (H&S) within the same organisation commented that currently many of the older workers enjoyed an enhanced pension which required 12 months notice. A participant (Ops) from another organisation also commented that many of their older workers currently had a good company pension, so were generally happy to discuss when they wanted to retire and this was a question asked at an employee's yearly appraisal. However participants believed once the older workers on these enhanced pensions had retired, succession planning and early recruitment could be more problematic, mainly due to short notice periods.

Within one organisation the following differing views were provided about capturing safety knowledge:

"… Our electrician is leaving next year and it will be a tremendous loss. Getting someone in early will get them used to the environment and the quirky safety things people know." WR

"... Once you capture knowledge it becomes best practice and then we tell people how they have to do a job, but someone else may have done it differently for the last 30 years and say they do it better. Which is right? So we have to be mindful of that." HR

A participant (HR) from one of the medium sized organisations said that because many of their operators were being trained on a number of different production processes, which enabled flexibility of labour, they believed their organisation was less exposed should someone decide to retire unexpectedly. Participants with a range of backgrounds from three organisations also commented that early recruitment was constrained by budgetary control on increasing headcount. One participant (H&S) said there was no consistency within management teams as to when recruitment should be implemented and they believed this resulted from lack of policy.

When participants were asked if they conducted exit interviews when employees retired, there was agreement that it would be useful. Participants believed people may be more willing and open to talk about any challenges resulting from health or capability declines. Currently not all organisations conduct exit interviews when people retire and for those that do they are always conducted by human resources personnel. One participant (H&S) felt it would be useful to involve other departments i.e. health and safety and/or occupational health in these exit discussions. One participant (Ops) from a large organisation felt that these interviews should be conducted more informally by someone that the older worker already knew, rather than by a stranger from human resources. One participant (HR) said that questions around capability and job issues were not asked at the exit interview but could be a useful addition. Another participant (H&S) from a large

organisation, although agreeing it was potentially useful, was also cautious about what would happen to any information disclosed, especially if it was of a confidential nature. They also raised a concern about any potential issues the older worker discussed and how these may result in the organisation having a list of problems that they may not be able to action.

Age awareness training/pension and self-analysis workshops

Participants were asked if they felt it would be useful for managers/supervisors to have age awareness training, covering aspects such as capability changes, support available, information on legislation and policy. All but one participant agreed that awareness training would be useful. There was general agreement that employers placed a lot of responsibility on this 'time poor' group, but had not provided them with the knowledge to manage people with potential age changing requirements. Examples given to indicate the need for age awareness training included the following, one participant (WR) said that younger managers expect their teams to be as physically fit as they are; while another participant (WR) provided the example of the necessity of some older workers requiring more frequent trips to the toilet. Two participants (HR, H&S) believed that lack of knowledge was inhibiting action, one saying that capability changes were being viewed as a joke and not taken seriously, while another said that age discrimination was being used as an excuse and preventing action. Better allocation of tasks and earlier recognition of changes were also seen as benefits from age awareness training. One participant (H&S) commented that there is an assumption that if people are trained to do something, then they have the capability to do it and no consideration is given to any changes over time. While being interviewed one participant (HR) began formulating plans for disseminating information about dementia to the workforce through their monthly newsletter. Another participant believed age awareness could help drive innovation and process improvements benefitting older workers. One participant disagreed with the training suggestion:

"We are putting so much on managers we are hedging towards the nanny state." Ops

Participants were also asked if they thought it would be useful for all workers to receive age awareness training. Positive responses were provided by n=13 participants. One of the large organisations had already conducted a pilot wellbeing workshop and one participant (HR) believed age awareness training would be a useful addition. One participant (Ops) said that there was 'a veil of secrecy' amongst colleagues about someone's capability changes and this training would help 'break down barriers' to reporting of issues related to capability changes. Another participant (WR) discussed the knowledge benefits in a wider context beyond work and helping family and friends who may be experiencing age related changes.

Three of the participants while saying it would be useful, also responded that caution was required. Two (H&S, WR) were worried that workers may use 'getting old' as a reason for not performing a task. One participant (H&S) said that their organisation was experiencing high levels of people on restricted work at one particular site and thought it was a combination of 'very sympathetic occupational health' and workers using their knowledge that if they had even a slight twinge they could reduce their work. One participant said

"There is always the fear in management that if you try and encourage people to report problems you might get a lot you were not aware of. So starting any new initiative is the fear of the unknown." H&S

Two participants (HR, Ops) believed only managers/supervisors should receive age awareness training. One participant (HR) suggested the possibility of having some first aiders trained as 'go to people' should someone want to talk to a peer first.

Participants were asked if they believed additional information on pensions, or a workshop on personal development/self-analysis would be useful. A brief explanation about the self-analysis workshop was provided (that it could help workers think about their working future and help them consider whether they believed they would be able to continue in their current role until retirement or if there were alternatives they could consider). Two participants (Ops, WR) discussed a pension seminar that was being trialled. An external pre-retirement charity group had been invited to talk to selected employees over 55 years about pensions, lifestyle changes and financial aspects. Two participants (both HR) considered a workshop on personal development/self-analysis of future prospects would be useful. They thought this was not something many workers had considered and may be a route that might help some remain in the workplace for longer. However one then believed a possible barrier would be if people assumed that the organisation always had opportunities or alternative jobs available.

Reporting of capability changes

Earlier studies had identified that older workers may not be reporting capability problems. Appropriate participants were asked if there were any controls to ensure confidentiality and fairness. Two participants (HR, H&S) said that managers may be sharing information in order to get advice. Two other participants (HR, Ops) believed occupational health were taking confidentiality to extremes and were not sharing relevant information with managers. One participant (Ops) said by the time they know there is a problem it is too late to help the worker remain in the workplace, but if they had been told of health issues earlier they may have been able to make adjustments. One participant (HR) believed refresher training on handling confidential information was required. One participant (H&S) said that reports from occupational health visits were left on a desk and that people openly spoke about sickness absence in public areas. One participant (HR) said that they try to safeguard personal information by marking it confidential

and only having conversations behind closed doors. However they admitted that breaches in confidentiality occurred.

Three participants (H&S, Ops, WR) talked about a lack of employee confidence due to poor trust in management. One participant (WR) said people were more confident about reporting problems that affected their job, if the capability declines were only of a short duration. They believed it was unfair to implement adjustments and ask other workers to be more lenient for someone whose capabilities may be changed permanently. One participant (Ops) admitted they were currently dealing with a 'legacy of poor trust in management'. Changes were currently underway within the management team to address identified issues, move managers and review training. The participant hoped this would help build trust over time and resolve under-reporting. One participant (H&S) responded that adjustments were not implemented fairly and commented that the "noisiest person gets the adjustments".

Proactive approach to participation and engagement

Participants were asked if they had considered how communications were disseminated and if older workers' views were represented. Eight participants said that was something they needed to consider. There was general agreement that there was a reliance on electronic forms of communication and that this medium may not always reach older workers in some parts of the organisation. There was also agreement that older workers may be under-represented, as managers were not always endeavouring to ensure age inclusive representation at meetings, writing workplace assessments etc. One participant (HR) agreed it would be useful to gather older workers' opinions, but said that it was not practical to seek the views of every older worker. One participant (H&S) said they had tried to capture views from across the workforce in a structured way by holding meetings, but had received negativity to new approaches from their older workers. One participant (Ops) said that engagement with older workers

could be improved, but hoped that having 'grey senior management' would help their voice be heard. One participant (H&S) explained that they had recently established a new health and safety committee and they had endeavoured to include a range of representatives to share experiences. One participant (Ops) suggested the stereotypical perception of older people being 'grumpy' may be a barrier to inclusion. Another participant believed older workers may be excluded because they had shorter time remaining in the workforce:

> "… with an older workforce there is so much experience they can bring to the table, but they don't always get the opportunity too. Some people think well they are going to retire soon, let's leave them alone and focus on the young." H&S

Health promotion

Participants were asked if they had considered increasing the frequency of health surveillance as workers aged. One participant (H&S) said that they provide health checks for certain categories of job every 3 years, these increase to annually for workers over 60 years. They said they will be holding a health roadshow in the next few months and will ask attendees their views on the frequency of health checks and who should have them. Another participant (WR) said that workers could request additional health checks if they felt it was necessary. One participant (HR) said that their occupational health specialist would determine the frequency of health checks according to a worker's health issues. A participant (Ops) from the same organisation explained that a worker's health check frequency would be based on age, role and lifestyle risk factors (weight, alcohol consumption and smoking habits). One participant (WR) believed workers would be suspicious if the frequency increased, while another (H&S) said that the additional cost would be a barrier. Both reasons were also cited as barriers for introducing health checks for all workers. One participant (H&S) said their organisation used an online questionnaire and depending on a worker's

responses they received an age risk factor and health advice. However they were trying to promote this initiative again as the number of workers completing the questionnaire had been low.

Participants were asked about the possibility of providing some basic equipment for employees to use themselves i.e. blood pressure machine, scales or access to a more sophisticated machine that also provided a BMI measurement. Eight participants believed this could be beneficial for workers trying to assess their health discretely. One participant (H&S) said they had trialled the sophisticated BMI machine for several weeks but the 'take-up was dismal'. They said that the cost was prohibitive when considering use, but agreed that a simple £200 blood pressure monitor with printer and a pair of scales would be useful. One participant (HR) said their organisation held safety days annually and those checks were generally included for anyone to access. Another participant (Ops) highlighted the importance of equipment location, as equipment had been provided in the past, but this was stored in a locked area and people had to request access, which impeded use. One participant said that the equipment would not be used believing that people would prefer not to know if they had problems.

Participants were asked if they thought health promotion information would be useful (e.g. leaflets on bowel cancer, testicular cancer, healthy eating, importance of exercise as people age). Three participants (Ops, 2xWR) said their organisation provided information that they personally found useful, however one said the leaflets were not easily accessible, being kept within a locked area. One participant believed it was better to offer information and people could then choose to read it, or disgard it. This was considered a relatively cheap way of communicating to high volumes of personnel.

Participants were asked if their organisation offered flu jabs. Three participants from different organisations confirmed flu jabs were offered to employees. One participant (H&S) explained that they worked with their local

health centre and GPs visited the site on a specific day and they usually had about 80 workers wishing to have the flu jab. One participant (WR) thought their organisation was possibly going to introduce the option that year, following a high volume of illness incidence the previous year. Within the organisation that did not offer flu jabs, one participant (H&S) explained that they had attended a conference and a professor had said that flu jabs 'were a waste of time' due to virus mutation. Another participant (WR) believed a barrier could be that people thought they were for 'old people' and would not participate.

Participants were asked if their organisations had implemented any approach to fatigue management. It was explained that fatigue management considered both physical and mental fatigue and went beyond a state of sleepiness or simple controls seen in risk assessments (e.g. hydration in hot environments).

Three examples were provided to prompt discussion:

- Additional working to cover absenteeism or production deadlines
- Long travel times additional to working hours
- Shift workers having to work additional hours (to attend meetings or to cover following shifts).

Six participants said their organisation had measures in place to manage working hours to help reduce fatigue. Compliance with the Working Time Directive was cited by some. One (Ops) stated a legal reason specific to their particular working environment (an 11 hour rule). Another (H&S) stated business and financial reasons why overtime was limited (additional high energy usage).   One participant (Ops) said they had experienced occasions when people had made mistakes and when they had talked to the worker they had found they were working two jobs. Two participants (both Ops) explained that any controls were informal. Five participants agreed that shift

working could be a problem and required better recognition and communication. One participant (Ops) regularly witnessed shift personnel being invited to attend meetings commencing hours after they should have finished work. One participant provided an example of a serious life changing accident that had occurred in the 1990s.

> *"It's needed but there will be barriers to helping the shift workers. I remember one of the guys in the 90s driving home after a night shift and he fell asleep at the wheel and hit a tree. He had a severe brain injury and had to leave work. That was knowledge that was in the company, but people have left and it's been forgotten." WR*

One participant (WR) believed that older employees had more confidence to say if they were fatigued. One participant (WR) believed their employer would have a problem if workers started 'ringing in to say they were tired' and thought this was a barrier as they did not know how the organisation could manage this. Two participants (both WR) said it would be very useful to consider, with one explaining that potentially employees could work 15 hours without a break.   The same participant said their organisation was in the process of introducing a drugs and alcohol policy, but they considered fatigue issues a much bigger problem. One participant (HR) said it was something that they had not considered yet.

Participants were then told that in previous interviews employees had expressed an interest in on-site gym facilities. Two participants (H&S, HR) agreed it would useful as they had experienced this facility at previous organisations. One participant said there was nowhere large enough on site to convert into a gym facility. One participant said they had requested this before, but were told that it was not feasible due to legal reasons.

> *"…I was told from a health and safety point of view it has to be manned to observe that people are doing things properly. And where*

166

would the company be if someone had a heart attack and they were in there on their own." WR

Workplace assessments and control measures

Employees interviewed during previous studies had commented that they found risk assessments were written for younger, more physically fit workers. Workers had also commented that assessments were not reviewed adequately, explaining they had used the same equipment for many years, had subsequently experienced changes in physique and capability, however assessments were not updated with this new information.

Many of the participants agreed with those comments. Three participants (H&S, Ops, WR) believed it would be too time consuming to include differing capabilities. One participant (H&S) said their workplace assessments tended to focus on the machine rather than the manpower and thought financial implications of any potential additional control measures may be a barrier. Another participant (H&S) said that financial constraints could be a reason for generic controls, saying that some managers were happy to assess and pay for differing requirements, while others may decide not to spend their budget on this. One participant (Ops) believed inadequate knowledge of the people completing the workplace assessments was a barrier, while another participant (Ops) said that assessors were not involving older workers undertaking the tasks. One participant (HR) said their organisation carefully considered risks to younger workers because of legislation, but had not considered risks due to changing capabilities. One participant (Ops) said that they rotate people during the day and it would be difficult to have different controls in place at each workstation for specific groups/people. One participant (WR) said that people are paid the same, so everyone should be expected to do the same job. One participant (H&S) said the HSE had served an improvement notice, because their workplace assessments were not suitable and sufficient. Another participant (Ops) from the same organisation said they recognised their ergonomics assessments were not

sufficient, but they were trying to improve this situation, by holding discussions with suppliers and attending trade shows to identify better equipment.

Five participants agreed changing capabilities could be considered on workplace assessments. One participant (H&S) discussed the extensive work they had recently completed involving their fork lift trucks. Tests had been conducted on seating and driving, to determine whether there was a possibility of changing the height of loads to enable drivers to face forwards on a more regular basis. During the test phase, the participant believed no consideration had been given to changing capabilities or posture and stated that no additional changes had been considered to the risk assessments in 20 years.

One participant (Ops) explained that they placed responsibility on workers to report if they could not perform the task, according to the safe system of work documentation. However this was 'open to interpretation', as it stated that 'huge exertion to undertake the task would not be required'. When they considered some of the jobs being undertaken they said:

> *"… there may be some tasks where someone in their 20s can do it more safely than someone who is 60, because of their physical ability…."* Ops

Two participants (H&S, WR) said their organisation conducted worker observations/conversations and thought that would be an ideal opportunity to include a question about changing capabilities.

7.3.3 Summary of facilitators and barriers to health and safety good practice examples

Table 7.1 lists a summary of facilitators and barriers to the good practice suggestions as identified by participants of four manufacturing organisations.

Table 7.1 Summary of facilitators and barriers to health and safety good practice suggestions

Suggestion	
Age diversity policy and guidance	**Facilitators** • Provides an easily accessible framework eliminating differences in support • Will provide information to workers which will hopefully build their confidence enabling increased reporting/better discussions
	Barriers • Managers may lose ability to tailor requirements for individuals • Workers may incorrectly perceive that the organisation will respond in a certain way and always have options available • Difficulty of what to include and it would then require the safety management system changing to enable continuity • Additional training requirements for everyone e.g. policy, difference between fair and unfair discrimination

Table 7.1   (continued)

Work environment	**Facilitators** **Lighting** • Budgets already agreed for yearly surveys • Better lighting driven by cost – financial benefits of replacing with LEDs that offer enhanced lighting – more energy efficient, longer lasting **Flooring** • Easy to contact supplier for advice on appropriate footwear offerings e.g. extra support, orthotics etc • Fairly low cost to provide anti-fatigue matting, cushioned flooring • System for reporting of problems in place **Rest facilities** • Useful suggestion
	Barriers **Lighting** • Adequate but reliance on people reporting problems **Flooring** • Visual checks may not identify problems, reliance on people reporting • Cost could be prohibitive due to immense size of sites **Rest facilities** • Cost, effort and reward e.g. ongoing cleaning, maintenance etc

Table 7.1   (continued)

Work scheduling	**Facilitators** **Flexible working/job share** • Option helps to keep older worker in workplace longer • Personal – increased motivation and rest time • Business advantages – better cover for holidays/absence, possible reduced break times, increased performance/productivity **Redeployment/stop shifts** • People can request – but see barriers
	Barriers **Flexible working/job share** • Difficulty if there is an older worker the organisation does not want to encourage to stay in workplace • Easier to manage when its office based personnel, possible difficulties for production/shift workers • Limitations for some jobs e.g. those requiring long travel distances to work (e.g. mining) • People afraid organisation may view request as confirmation they have capability problems performing job • Problems with headcount and additional employment costs **Redeployment/stop shifts** • Requires relevant vacancy, there may be few opportunities • Challenging option for some roles/skills • Financial – loss of higher salary may inhibit requests

Table 7.1   (continued)

	<u>**Facilitators**</u> **Succession planning** • Can be a lengthy process, important to start recruitment process early to allow sufficient time for health and safety training for new worker • Better health and safety knowledge transfer (especially 'oddities' not captured by formal system) • Productivity performance decreases in last 3 months so new worker will help mitigate productivity decline **Exit interviews** • Older worker may be more open to discuss any issues 'nothing to lose' • Keep interview informal, older worker may be more willing to participate • Multi-department involvement i.e. health and safety, occupational health, human resources
<u>**Succession planning/**</u> <u>**exit interviews**</u>	<u>**Barriers**</u> **Succession planning** • Budgetary constraints on increasing headcount • Possible problems with health and safety knowledge transfer – it can become best practice for successors but may be incorrect **Exit interviews** • Generally only conducted for people resigning not retiring • Traditionally only conducted by HR who may be unknown to older worker – may inhibit open discussion • Problems of how to action any issues identified, especially if they fall under confidential information

Table 7.1   (continued)

Age awareness training/workshops	**Facilitators** • Managers expected to be 'experts' in different work aspects, it's a legal requirement to train and will help them identify changes and allocate tasks accordingly • May help break down barriers/secrecy surrounding capability changes • Short duration, not intensive or time consuming • Knowledge may help prevent inadvertent discrimination • May help drive innovation • Knowing about changes and possible options may help motivate/retain people in workplace
	Barriers • People may use knowledge inappropriately to avoid work tasks • People may think the organisation always has different opportunities/options available • 'Ignorance is bliss' – worry that openness/awareness may highlight lots of issues requiring actions

Table 7.1 (continued)

Reporting capability changes	**Facilitators** • Develop code of conduct – how information/meetings should be handled/conducted • Everyone to receive awareness training on confidentiality (could be included in age awareness training) • Need to build culture of trust
	Barriers • Lack of trust as confidentiality not always maintained • Managers/supervisors breaching confidentiality as they ask for help/advice on how to proceed with issues • Relevant support is not always offered due to confidentiality inhibiting information/communication exchange • Occupational health not always asking worker's permission to release personal information to their managers who may be able to offer additional support in workplace if they were aware of some health issues
Participation/ engagement	**Facilitators** • Use multiple methods for information dissemination • Ensure older worker is represented
	Barriers • Reliance on electronic communication only • Older workers views not included

Table 7.1   (continued)

Health promotion	**Facilitators**
	Increase frequency surveillance
	• Consider all risk factors for person (lifestyle/role/age)
	• Online questionnaires capture people not included in health checks completed for legislative requirements
	Basic health check equipment
	• Self-checks: people more likely to use if it is discreet
	Information (leaflets)
	• Will be read if relevant
	• Location vital
	Flu Jabs
	• Offered following previous experience of high volume of illness
	• Arranging onsite for everyone/same day
	Fatigue management
	• Shift working – permit longer breaks, prohibit second jobs
	• Legislative requirements
	• Limiting overtime
	On-site gym facilities
	• Easily accessible before/after work and lunchtimes – people more likely to use

Table 7.1 (continued)

	<u>**Barriers**</u> **Increase frequency surveillance** • Resource (money/time) • Meets legislative requirements, but older workers may be suspicious if frequency increased • Concern about additional personal data held by organisation **Basic health check equipment** • BMI equipment too expensive, but cheaper options a possibility e.g. blood pressure monitor • Probably wouldn't get used **Information (leaflets)** • Not easily accessible
Health promotion (continued)	**Flu Jabs** • Older workers not understanding benefits • Experts sending mixed messages about usefulness **Fatigue management** • Previous knowledge about incidents lost • Lack of consideration of workers start/finish times when arranging meetings etc (especially relevant for shift workers) • Problems how organisations would react/action issues if people communicated they were fatigued • Nothing formalised, inconsistencies, managed on an individual basis **On-site gym facilities** • Space limitations • Concern about legalities/risk

Table 7.1   (continued)

	Facilitators
Workplace assessments/control measures	• Involve relevant people e.g. older worker
	• Take account of differing capabilities
	• Assessors should be experienced/knowledgeable about capability changes and relevant control options
	Barriers
	• Cost implications of additional actions
	• Time consuming to include differing capabilities
	• Problems when workers rotate (they may require differing control measures at different workstations)

7.4   Discussion

This study explored a selection of approaches/measures that may help older workers remain in the workplace for longer. Examples of good practice health and safety measures were discussed with representatives from four manufacturing organisations, to understand whether they were perceived as beneficial and achievable, or if there could still be potential challenges to implementation.

7.4.1   Age diversity policy and related information

The findings discussed in previous chapters in this thesis identified a lack of an age diversity policy relevant to older workers, which led to inconsistencies within organisations when managing older workers. The findings from this study identified over half the participants believed an age diversity policy and additional information would be beneficial, as it would provide a framework and guidance for both managers and workers to use, enabling continuity. However perceived barriers were discussed, with some participants believing a formal policy may lack the flexibility necessary to meet individual needs. People may perceive that the organisation would always be able to offer

adjustments, if required, when in reality the options and resources may be limited. A lack of awareness regarding age related capability changes and a fear about age discrimination, may be a barrier to implementation of an age diversity policy. Participants suggested that an age diversity policy and guidance would benefit younger or inexperienced managers, who currently may be reluctant to raise a query in case they appeared foolish.

7.4.2 Work scheduling and fatigue management

When participants were asked if their organisation offered job share, flexible working or reduced hours, although these options were viewed favourably, the participants believed they were currently unavailable to most of the workforce. The Flexible Working Regulations, as amended 2014, provide the right for all employees (who have worked with the organisation for 26 weeks), to request flexible working and employers are required to consider all requests. Participants commented that these options would be beneficial as they could provide increased productivity and enhanced business flexibility during peak times, in addition to the availability of extra cover for absence and holidays. It was believed the availability of these options may also increase employee motivation and performance. Haslam et al (2013) found that offering flexible working practices may enable employees to continue working. However, participants believed these options would only be offered if they were beneficial to the business. Barriers to implementation were headcount issues, budgetary constraints and difficulties managing these options. Having the flexibility to discourage some employees from remaining in the workplace was also cited as a reason for not offering these options.

Participants were asked about redeployment options and if people had the opportunity to stop shift working. While participants understood that shift working was damaging to health, they believed it could be problematic for people to leave shifts, or have redeployment options, due to potentially decreased salary, or lack of vacancies. Previous research had highlighted that employers should offer assignment adjustments or job changes that are

better aligned to changing capabilities (Knauth et al 2005, Johnson et al 2011).

During discussions about fatigue management, it would seem that within one company additional working hours appear to be managed locally on an ad hoc basis, with no continuity either amongst managers or for managing different situations. Unfortunately it appears that a serious accident to an employee in the 1990s did not lead to a fatigue management policy or guidance and the knowledge of this accident is now confined to a limited number of long servicing employees. While organisations are complying with the Working Time Directive, there was recognition that fatigue management is an area that requires additional focus.   The Working Time Regulations 1998 (as amended 2003), implement the European Working Time Directive into British law. Darwent et al (2015) discussed the 'shared responsibility' of fatigue risk management. They reported that organisations provide sufficient sleep opportunities, but that workers have responsibilities to ensure they have adequate rest. A policy would provide clear guidance for both managers and employees, on what is acceptable, control measures, monitoring and reporting.   Dawson et al (2012) suggest identifying where fatigue-related errors could occur and incorporating fatigue–proof controls into the safe operating systems. They believe this will help reduce fatigue-related risk where a reduction in working hours may have negative impacts on the organisation.

7.4.3   Recruitment/succession planning

Organisations recognised the key role older workers have in knowledge transfer and recognised they have to safeguard against the threat of knowledge loss when older workers retire. This is consistent with the literature (Wenger and Snyder 2000, Streb et al 2008). Participants agreed that there were benefits to succession planning and early recruitment. However concerns were aired that early recruitment could be constrained by budgetary controls on headcount and inconsistencies in the recruitment process, due to lack of policy guidance.

Participants were also asked whether their organisation conducted exit interviews for employees retiring. Although many participants agreed that exit interviews for older workers retiring would be useful, they were not currently being conducted. There was also disagreement about who should conduct the interviews. Human resources appeared to be the traditional department to conduct these interviews, but some participants felt it would be more beneficial if other departments, or someone known to the older worker should be involved. When implementing exit interviews for workers retiring, employers also need to consider how they would proceed with any potential issues raised.

7.4.4 Reporting

Discussions highlighted problems with confidentiality. Within some organisations there was an apparent lack of control to ensure confidentiality; while other participants raised concerns that relevant information was not being shared with managers so older workers were not receiving the help they required. Lack of trust was also inhibiting reporting of permanent issues. The importance of accurate reporting of work-related conditions to enable necessary interventions has been identified in the literature e.g. Hoonakker and Duivenbooden (2010).

7.4.5 Work environment

In previous studies in this thesis various aspects of the work environment had been raised as potential concerns should capability changes be experienced. However during this study it was only possible to explore two representative aspects of the work environment i.e. lighting and flooring.   While participants in this study agreed that their organisations had systems in place for maintaining lighting and flooring, it was clear that no additional consideration was given to potential age related capability changes. Organisations were relying on individuals to report issues they may experience, however with reporting problems already identified, organisations may be unaware of issues.   Fortunately better lighting was a consequence of financial drives to provide increased energy efficiency. However, correct lighting selection is

essential, while LED lighting offers financial benefits, researchers have noted potential risk of LEDs if they are not the right type and installed correctly. Researchers have cited that blue-light can disturb circadian rhythms, cause retinal damage and discomfort related to the intensity of some lights (West et al 2011, Lougheed 2014). Previous research reports that environmental stressors can reduce wellbeing (Lamb and Kwok 2016) and that inappropriate lighting may contribute to the greatest reduction in performance.

While some measures are offered to workers who are required to stand or walk for long periods e.g. selection of footwear and anti-fatigue matting, general flooring issues seemed to be a persistent problem, due to the immense size of some of the sites. Vision, flexibility, mobility and balance all deteriorate with age which can lead to increased risk of trips and falls (Kowalski-Trakofler et al 2005, Silverstein 2008, Crawford et al 2010, Schwatka et al 2012), therefore good lighting and flooring are essential.

In the previous study (chapter 5) older workers also suggested quiet rest facilities would be beneficial. For some this could be achieved with little effort, while for others this would prove difficult. Some cited cost, while others raised issues about adapting local policy and legislative requirements.

7.4.6 Workplace assessments/controls

While there was agreement that changing capabilities could be considered in assessments, many participants said that their workplace assessments were written for younger, more physically fit workers and they lacked adequate review. This finding confirms concerns raised by Streb et al (2008), who also noted workplaces were being designed for physically capable younger workers. The European Agency for Safety and Health at Work states that age sensitive assessments should take account of the large differences in functional capabilities (OSHA.europa.eu 2012b). However discussions with participants identified this was considered a barrier, as it was believed it may be too time consuming to include all the differing capabilities. Participants

stated that financial constraints of providing different adjustments may also be a barrier, as may inadequate knowledge of assessors.

Differences amongst individuals increase with age. Where possible environments should have a 'universal design' that meets the requirements of all age-groups, thus providing for both older workers, while at the same time preventing or slowing potential work related declines in younger workers (Silverstein 2008).   A person's ability to meet particular job demands can only be maintained when appropriate interventions are implemented (Ilmarinen et al 2005, Kowalski-Trakofler et al 2005, Bohle et al 2010). It is important that tasks, work environment and capability requirements are assessed so that employers understand where age related changes could become an issue (Ziekemeyer 2005, Schwerha 2010).

7.4.7 Training

There was general agreement that age awareness training for managers/supervisors would be beneficial. There was recognition that organisations placed huge responsibility on this group, but had not provided them with the knowledge of how to manage people with potential age changing requirements. It was believed in some cases this may be inhibiting support. Managers/supervisors play a crucial role assessing their team members for potential work constraints and adjusting work requirements (Streb and Gellert 2011).

While most participants believed age awareness training would be useful for all workers, some highlighted potential concerns. Some were cautious saying workers may use the new knowledge as an excuse for not completing tasks. Ilmarinen (2006) argued that training that included age related factors would be useful for all workers.

Some of the participants also agreed that a workshop on personal development/self-analysis of future prospects would be useful and may help more older workers remain in the workplace. The benefits of pension workshops were also highlighted.   This may prove a useful addition, as Vickerstaff et al (2003) noted that individuals may be forced to make

retirement choices with little knowledge or understanding of their pension position.

7.4.8 Participation and engagement

During interviews there was agreement that older worker engagement needed to be considered. Currently there was a reliance on electronic forms of communication, but a recognition that other channels of communication needed to be used. There was also a recognition that the views of older workers were not being captured. Lack of inclusion of this age group could be a result of the incorrect perception that older worker do not wish to participate in discussions etc. In a report by Eurofound (2012) it was noted that regular discussions with older workers about their development, aspirations and plans was beneficial and could help address concerns. Feelings of engagement is a leading indicator of intention to stay within an organisation (Vincent-Hoper et al 2012).

7.4.9 Health promotion

Results from this study show that health checks are predominantly only performed to comply with legislation, e.g. provided for workers undertaking certain categories of tasks. One organisation has increased the frequency from 3 years to annually once workers reach 60 years of age. Potential barriers to increasing the frequency of health checks or offering health checks for all workers could be related to additional cost, or fear that workers would be suspicious should the current health check regime change. This finding diverged from findings in the previous studies and research by Crawford et al (2010b) who reported that older workers see positive benefits of health checks.

Favourable responses were received to the suggestion of providing basic equipment for workers to conduct simple health checks themselves e.g. blood pressure machine. Participants agreed that health promotion information e.g. leaflets on healthy eating, importance of exercise as people age were useful, but said that access to this information needed careful consideration. When discussing the possibility of onsite gym facilities there

was agreement that this would be useful, however lack of suitable location and worry about legalities were barriers to implementing this initiative. Researchers have reported numerous factors that can influence and help minimise age related risks such as lifestyle, exercise and nutrition and that workers can promote their own health by practising good health habits (Benjamin and Wilson 2005, Naumanen 2006).

In the previous study (chapter 6), workers said they would like their organisation to offer flu jabs. Discussions during this study identified some employers fully embraced this suggestion. One medium sized organisation had arranged local health professionals to attend their site. Other participants discussed possible barriers to offering flu jabs, e.g. confusion about the usefulness of this inoculation, or older worker inertia or resistance to this initiative.

7.4.10 What prompts organisations to implement additional health and safety approaches/measures

Organisations may implement measures in response to either internal or external requirements e.g. legislative changes or following incident investigations. Reviewing the participants' responses it appeared that health and safety and operational personnel tended to be more proactive, preferring options/measures that could be implemented for all older workers. The opinions of human resources and the employee representatives tended towards being more reactive, believing measures would be implemented in response to a specific issue being highlighted. One organisation had recognised the workforce was ageing and included wellbeing and the older worker in their plans. However it was clear that this proactive initiative had not been communicated effectively, as some participants were unaware of the plans and commented that measures for the older worker would only be implemented following an incident. Risk assessments may highlight requirements for older workers. Knowledge of research in this area can also prompt organisations to implement measures. One organisation is endeavouring to increase trust and engagement with its workers following a

period of management failures. This organisation had participated in all four studies in this research and was keen to implement measures to help older workers.

The importance of embedding effective health and safety measures into corporate strategies will lead to many benefits e.g. better health and safety and increased motivation (Naumanen 2006, Granville and Evandrou 2010). Although lack of knowledge or limited resources could be a reason why many organisations do not prioritise health and safety (Haslam et al 2016).

7.5   Strengths and limitations of study

The organisations participating in this study covered a wide range of manufacturing activities i.e. mining, quarrying, foundries, products for construction, specialist products for industry, logistics (warehousing and haulage). They also had a large geographical spread to capture regional differences and comments were gathered from both large and medium size organisations. Senior key stakeholders i.e. health and safety, human resources and operational, within each organisation were interviewed to understand from their department's perception whether the suggestions were achievable. A fourth person from each organisation was also interviewed who represented the worker voice. A limitation of this study was the low number of organisations who participated (two large, two medium). This limits the generalisability of the findings.

Participants' reactions to the proposed measures, while of value, may be influenced by other factors affecting participants' perceptions, so responses should be treated with caution. The participants may not be in a position to have an opinion on the value of these measures. To counter this, different participants representing different departments were interviewed.

7.6   Conclusion

The study presented in this chapter explored possible health and safety management measures, to understand whether they would be beneficial and achievable within organisations.   The findings show there are both reactive

and proactive reasons why organisations may be prompted to implement approaches/measures, to help protect and promote the health and safety of older workers. However while some organisations are proactively engaging with their older workers to understand changing capabilities, it would appear employers do not fully recognise the benefits and importance of embedding effective health and safety measures into their work environment.

Barriers to implementation of some of the measures were identified, however some of these could potentially be resolved by improving company policies and additional training of management. Three of the participants from each organisation were key senior personnel who have the authority to lead change and while they sometimes had inconsistent views, there was a general agreement about the potential benefits of these measures. Following their participation in this research, all organisations have recognised older workers may require additional help.

Chapter 8   Discussion and conclusions

The overall intention of this thesis was to increase understanding of the opportunities and challenges encountered by employers seeking to protect and promote the health and safety of older workers. The thesis approached this problem firstly with a literature review. This was followed by a field study involving employers, to understand the challenges anticipated as the workforce ages and the actions they had implemented to protect older workers. Two further field studies sought to understand older workers' perceptions on working into later life and the health and safety measures that would help them remain in the workplace. Following these three field studies, a list of good practice health and safety measures was compiled. A fourth field study assessed employer reactions regarding the feasibility and effectiveness of the suggested health and safety measures.

8.1   Summary of key thesis findings

Four qualitative studies were undertaken to achieve the aims of this thesis. The first study comprised interviews with senior managers (n=41), who influence health and safety management strategies. Participants represented a variety of sectors (n=13) and organisation sizes (small n=3, medium n=9, large n=29).   While the findings highlighted that older workers bring benefits to the workplace, employers identified implications of an ageing workforce and barriers to implementing health and safety management strategies for older workers. A summary of the research questions and key findings discussed in chapter 4 are presented in Table 8.1.

The second study comprised focus groups (n=10) with older workers (n=46), from medium (n=2) and large (n=8) size organisations.   One group comprised of workers from the education sector; the remaining focus groups (n=9) were conducted in the manufacturing sector. This study sought to understand these older workers' views on the barriers identified by employers

in the previous study and to obtain suggestions for measures that could help older workers remain in the workforce longer. A summary of the research questions and key findings discussed in chapter 5 are given in Table 8.2.

The third interview study explored older workers' perceptions regarding their health and capabilities, their perceived future in the workforce and the support they believe their organisation provides (n=50). Interviewees were invited from large or medium size organisations within the manufacturing sector. A summary of the research questions and key findings discussed in chapter 6 can be found in Table 8.3.

The findings from these three studies were then combined with information gathered during the literature review, to develop good practice health and safety measures that organisations could implement to help promote and protect the health and safety of older workers. The final study interviewed key employer representatives (n=16) in medium and large manufacturing organisations, to examine whether the good practice health and safety measures might be beneficial and achievable. A summary of the benefits and challenges of implementing the good practice health and safety measures is given in Table 8.4. Figure 8.1 presents a summary of the findings of the four field studies combined.

Table 8.1   Summary of key findings of chapter 4, interviews with employers

Research questions and key findings

What implications does an ageing workforce have for organisations?
- Changing capabilities and hidden health issues that may impact on work, were identified as a concern.
- Employers believed their reporting system may be ineffective. Some cited workers 'fear of consequences' as a reason for being unwilling to report issues.
- Reliance on managers to identify potential issues, but they are not provided with necessary knowledge and tools.
- Succession planning is challenging.

What health and safety benefits do older workers bring to the workplace?
- Interviewees described both positive and negative benefits older workers bring to the workplace, similar to those found in the literature.

To what extent have health and safety age management strategies been implemented?
- Organisations slow to implement health and safety age management strategies due to: uncertainty of what to implement, concern about age discrimination and reliance on health surveillance (mainly for specific roles).
- Difficulties coordinating actions between different areas of the organisation i.e. health and safety professionals, operational personnel and human resources.

How is health and safety knowledge transferred from experienced older workers to inexperienced personnel?
- Reliance on informal knowledge sharing in most organisations, with the resultant problems this may create, already highlighted in the literature.

Table 8.2   Summary of key findings of chapter 5, focus groups with older workers

Research questions and key findings

Should adjustments be made to help older workers remain in the workplace? When should they be actioned?
- Adjustments should be implemented for older workers, ideally proactively that will benefit all.
- Employers also need to seek older workers participation/engagement in discussions.

What actions would an employer take, should a worker experience age related capability changes that affect their ability at work?
- Participants were concerned that reporting issues could result in dismissal or redundancy threats.

Should age related capability changes occur that impact on work, do older workers believe the reporting culture within their organisation is effective?
- The participants indicated that the reporting culture was ineffective, as a result of lack of trust in managers and supervisors due to breaching confidentiality, fear of consequences, no confidential access to Occupational Health, perception of reduced career prospects, loss of dignity, lack of sympathy from younger managers and supervisors.

Whether older workers believe there is benefit in their organisation providing age awareness training and who should participate in the training?
- Age awareness training would be beneficial for managers and all workers.
- Dementia/Alzheimers awareness should be included in training.

Is older workers' health and safety knowledge captured and transferred within the organisation? If so, how?
- Knowledge capture could be improved. Both 'formalised' systems and 'mentoring' processes exhibit inconsistencies.

Suggestions the employer could use to help older workers remain healthy and safe in the workplace
- A list of suggestions to help older workers remain in workplace was collated e.g. need company policies that include age diversity, increase health checks, improved succession planning, workplace assessments that include capability profiling, more suitable rest facilities.

Table 8.3 Summary of key findings of chapter 6, interviews with older workers

Research questions and key findings of discussions with full-time workers

Are older workers aware of their employer having any policies on age diversity, or any other related information about older workers?
- No age diversity policy or guidance in place, but agreement among participants that it would be beneficial.

What age related conditions do older workers have that that may affect their work? Where have these been reported and what adjustments been implemented?
- Many working with capability changes that are impacting their work.
- Many believed their work will be challenging in the future.
- Fatigue and shift work highlighted as specific problems.
- Reluctance to report – 'fear of consequences' and lack of trust in management.
- Only capability changes/health issues that have resulted in absence tend to be reported.
- The workers more likely to report issues are those who are financially secure.

What are the expectations of older workers remaining in the workforce and what are their motivations for this this?
- Many intending to retire early due to physical/mental capability changes; others remaining in work due to financial insecurity or because they enjoy work.

Do older workers have any examples of safety and health promotions/initiatives that have been particularly helpful to them?
- Health promotion initiatives were believed to be beneficial e.g. health checks, leaflets, importance of exercise.

How do older workers rate their employers' understanding of age related changes?
- 33% (n=16) reported their employers understanding of age related changes was very good/good.
- 38% (n=19) reported their employers understanding to be very poor/poor.
- 26% (n=13) chose neutral.

How responsive is their employer to changing capabilities?
- 45% (n=22) reported they expected their employer would be helpful and fair should their capabilities change.
- 28% (n=14) reported they expected their employer would be very unhelpful/unfair, with no adjustments offered and older workers possibly being 'managed' out of the business.
- 24% (n=12) chose neutral as they did not have any experience on which to base a rating.

Which of the age related suggestions, recommended by the focus groups, might be beneficial in keeping older workers healthy and safe in the workplace?
- Favoured options to help workers remain in the workplace – succession planning, work scheduling, health checks.

Table 8.4 Summary of key findings of chapter 7, interviews with employer representatives, to examine the benefits and challenges implementing good practice health and safety measures.

Suggested measures	Benefits	Challenges
Policy and guidance	• Would provide a framework of options and support available for employers and older workers • Would build confidence in older workers, knowing what their choices are	• Would requires additional training • May limit the option to tailor measures for each individual • May limit the employers option to dismiss older workers • Older workers may perceive a solution is always available
Work environment *(lighting, flooring, rest facilities)*	• Solutions may also provide energy efficiency savings • Reporting systems are already implemented, easy to include extra checks	• Current checks may not identify problems • Cost may be prohibitive
Work scheduling *(flexitime, job share)*	• Would help retain older workers • Would provide additional cover for absence, or times when increased productivity is required	• Difficult to manage • Difficult to implement for some job roles • People may be afraid to request - giving the perception they are unable to perform their job • May increase headcount and costs
Workplace assessments	• Could involve older workers (get buy-in) • Would achieve compliance with legislation	• Assessors would require additional training • Would requires additional time to include assessment of differing capabilities • Additional cost with differing control measures
Reporting	• Better understanding of capability/health issues – would enable effective control measures to be implemented	• Problems with maintaining confidentiality

Table 8.4 (continued).

Suggested measures	Benefits	Challenges
Age awareness training	• Would help employers and managers recognise/identify changes, with improved allocation of tasks • Would help drive innovation • Easy and quick	• New knowledge may be used inappropriately
Health promotion	• Would include older workers currently excluded • Leaflets etc quick and easy option	• Would need additional resources (money and time) • Older workers may be suspicious if additional checks are implemented
Participation/ engagement	• Would allow older workers' voice heard • Should improve reporting • Expected to increase older workers' morale	• Current high reliance on electronic forms of communications – would need to review different channels of communication • Older workers disinterested in participating
Succession planning and exit interviews at retirement	• Would enhance knowledge transfer • Would mitigate productivity decline in last few months • Undertaking exit interviews for retirees might improve knowledge about capability changes and their impact on jobs – older workers may be more 'open' to discuss issues at this stage	• Budgetary constraints may prohibit additional headcount • Older workers may still be inhibited from open dialogue during retiree exit interviews • Exit interviews are conducted by HR, normally personnel unknown to older worker – this may inhibit open dialogue • There could be problems/ confusion about how to process issues identified during the exit interviews

Employer barriers

Reliance 'healthy worker effect' and redeployment	Reliance on reactive occupational health function	Succession planning and knowledge transfer
Conflict between functions e.g. HR/H&S	Discrimination	Dialogue of issues
Perception, awareness	Financial	

Older worker concerns/ comments

Inconsistent support	Ineffective reporting (lack of trust/fear of consequences)	Work scheduling (lack of options/shift work/fatigue)
Assessments (only for younger colleagues/ineffective reviews)	Environmental challenges	

Figure 8.1 Overview of findings of four field studies

Figure 8.1 (continued)

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Policy and guidance	Awareness training	Work scheduling

Health promotion	Promote reporting	Workplace assessments and controls

Support, participation and engagement	Succession planning

Figure 8.1 (continued)

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8.2   Discussion of key themes

The combination of interviews and focus groups with employer
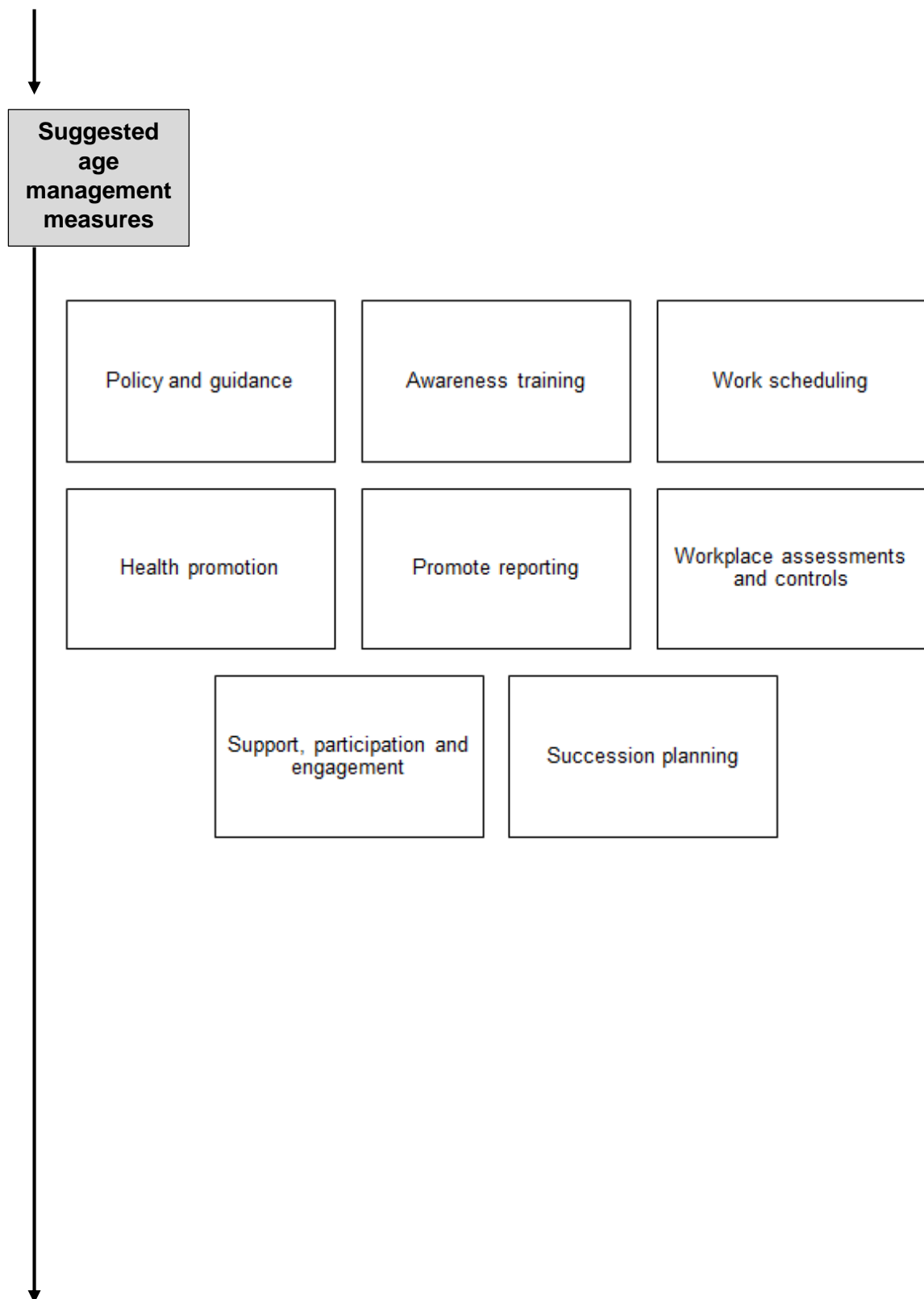representatives and older workers has provided an overview of the readiness
of organisations to support the health and safety of older workers and the
issues involved. At a broad level, the findings indicate many organisations
recognise the need to take action, but are unsure how to proceed. The key
themes arising from these studies are now discussed in turn.

8.2.1 Benefits and implications of an older workforce

The interviewees in this research perceived both positive and negative aspects surrounding an ageing workforce. Participants agreed that older workers brought a stability and maturity to the workplace with a more cautious, considered attitude. It was felt that they provided a wealth of experience and knowledge. These findings support those in the literature that older workers demonstrate greater safety-related behaviour (Lorretto and White 2006, Ng and Feldman 2008). However concerns about being reluctant to change and being unhelpful were also raised. These findings accord with research conducted by Gringart et al (2008) that found older workers were "set in their ways", lacking adaptability.

When discussing possible implications of an ageing workforce, worries regarding physical and mental declines were often mentioned. Employer representatives commented that their organisation may face additional financial costs associated with higher absenteeism, declining performance and corresponding adjustments. During discussions, one of the key barriers highlighted to implementation of age management initiatives was the cost. It was also apparent that many of the controls appeared to be aligned with legal compliance. This is consistent with findings from research conducted by Miller and Haslam (2009), who found that employers dedicated resources towards worker health issues based on legal, economic and ethical factors.

In the late 1980s B&Q conducted an experiment holding a recruitment campaign for workers aged over 50 to staff a store in Macclesfield. B&Q aimed to stimulate employment of older workers and break down some of the myths and negative perceptions (Employers Forum on Age, 2007). This experiment highlighted the benefits of employing older workers, who offered a wealth of knowledge and experience. B&Q offered initiatives that many older workers prefer, while stores that promoted age diverse teams enjoyed commercial success.

Extensive research undertaken in the automotive sector revealed that team performance improved when the average age of workers increased (Streb

and Gellert 2011). The BMW plant in Leipzig Germany demonstrated appreciation of older workers by actively recruiting workers between 50 and 60 years old. This plant encouraged a managerial approach that understood the specific needs of older workers. They also implemented phased retirement practices allowing workers to manage their own exit from work (Streb et al 2008).

Changes in legislation in the United States has enabled airline pilots to continue working until they are 65 (previously 60), taken as indicating the United States government was assessing future employment requirements and changing their perceptions about older workers (Popkin et al, 2008). Haslam et al (2013) found that employers see the benefits of retaining their older workers, thereby maintaining essential skills and knowledge within the organisation. However their research also identified a lack of awareness regarding the benefits of older workers amongst a minority of managers, who indicated that their recruitment selection was biased towards younger applicants.

In a conversation recorded for the British Safety Council (2014), the Chief Executive of TAEN (The Age and Employment Network) said that it was beneficial that people had the choice of whether to continue working or retire. However, the TAEN Chief Executive went on to comment that those facing the greater problems were older job seekers as opposed to older workers already employed, saying there was evidence that employers may be wary of employing this group of workers (British Safety Council 2014). It would appear then that older workers are often stereotyped, with little recognition of the diversity in their ageing (Walker 2014). This has an impact not only on those working, but those seeking work.

8.2.2 Importance of an age management strategy

Older workers sometimes perceive themselves negatively 'feeling like dinosaurs', which could impact on their motivation (Kooji et al 2008, Gaillard and Desmette 2010). They also expressed concerns about their treatment in the workplace. A high percentage conveyed their desire to retire early, due

to the physical or mental challenges of their role, but believed this option may be unrealistic due to personal financial insecurity. Previously, early retirement was seen by professionals and managers as an expectation (Vickerstaff 2010), but in the research presented in this thesis many of the older workers themselves cited benefits of remaining in the workforce e.g. economic and social wellbeing.

The findings from studies one and four suggest that while employers acknowledge their workforce is ageing, they are unsure how to proceed with implementing a coordinated age management strategy. It would appear that ad hoc actions are implemented, sometimes reacting to health and safety incidents. In the first study, nearly a third of employer participants said they were concerned with implementing age management strategies, as they believed they may be viewed as discriminatory. This is in line with research conducted by Silverstein (2008), which suggested that employers have insufficient knowledge of the laws governing the workplace, so perceive measures that favour older workers may be a problem. While 'age discrimination' is the unfair treatment of workers because of their age (Equality Act 2010), under limited circumstances age related changes may be justifiable (a legitimate aim). However it would seem that employers have yet to be reassured about this.

Due to the complexities of the ageing process, there is no 'one size fits all' strategy as different sectors face different challenges (Silverstein 2008) and different age groups require different interventions (McDermott et al 2010). Haslam et al (2016) reported that organisations with proactive occupational health and safety management benefited, not only from improved financial gains, but also improved employee commitment and 'better self-reported physical and mental health'. While older workers can compensate for some age related decline in their capabilities, it is important that employers have management strategies in place to protect this group of workers from increased risks to their health and safety.

A key part of an age management framework is information and guidance on age diversity. This research however, identified a lack of age diversity policy/guidance, which leads to inconsistencies within organisations when managing older workers, resulting in lack of trust in management. There was agreement among participants in this research that age diversity policies and guidance would be beneficial, however barriers to policy implementation were also discussed. During discussions with employers in the first study, it was highlighted that there was lack of coordination and inconsistencies between various business functions within an organisation. Age management interventions will only succeed with the backing of senior management and a supportive HR environment (Walker 1999).

There appears to be a heavy reliance on the occupational health function in organisations to identify issues during health surveillance. In practice, however, many employees are not included in any form of health check. Evidence suggests content workers are more productive, therefore, employers investing in the wellbeing of their older workers may improve performance (Bockerman et al 2012). The studies further highlighted potential issues surrounding knowledge transfer, as participants stated that in the majority of situations, knowledge was shared 'informally' through mentors. This may cause issues as employers are unsure of quality of the information passed on. Many organisations are also finding succession planning challenging. The importance of organisations safeguarding against the threat of loss of knowledge has been highlighted elsewhere (Streb et al 2008).

8.2.3 Age awareness training

This research identified that managers/supervisors have an important role in assessing their teams' capabilities and allocating work accordingly. However, during the interviews, it was acknowledged this could be problematic, as managers/supervisors were not provided with the necessary knowledge and tools to recognise and address changing capabilities. The importance of broadening managers' understanding of the needs and abilities

of older workers, was indicated by research conducted by Barratt and Bourke (2013).

During interviews, older workers felt that it would be beneficial for everyone to receive age awareness training, not only managers. This is consistent with research conducted by Ilmarinen (2006), which identified the requirement for effective training for both older workers and their managers/supervisors regarding age related factors. Participants in the current research believed training could improve reporting, as people would understand policies and their options as their capabilities change. It was believed, that in some instances, training might also help individuals manage their own minor capability changes, or help them assess their current role, to decide if it would be possible to continue in that role until retirement. However, potential concerns were highlighted that age awareness knowledge may be used inappropriately by workers to avoid work tasks, or they may mistakenly believe that their employer would always have alternative opportunities/options available.

8.2.4 Work scheduling and redeployment options

The literature review identified that older workers welcome work scheduling options that help them remain in the workplace. Worker interviews in studies two and three viewed job share, flexible working or reduced hours favourably, although it appears these options are often unavailable. It appears many workers are unaware of the change in the Flexible Working Regulations 2014, which state that employees meeting certain criteria (continuously employed for 26 weeks), have the right to request flexible working and employers must consider the request and respond. Interviewees discussed many possible benefits of these options, but then identified possible barriers to implementation of work scheduling changes e.g. difficult to manage, increases in headcount and additional costs. It was believed difficulties in changing working time would also arise for certain jobs e.g. shift workers.

During the interviews, older workers commented on problems surrounding shift work and fatigue, linking previous experience of safety incidents and their fatigue following night shifts. Extensive research has been undertaken investigating aspects of shift work scheduling, fatigue and health issues. Zimberg et al (2012) likened shift work symptoms to jet lag with some shift work schedules inducing chronic sleep debt. The literature identified that sleeping less than five hours prior to work, or awake for more than 16 hours, increases the risk of injury (Coombs 2015). The relationship between fatigue and safety was highlighted by Williamson et al (2011), Figure 8.2.
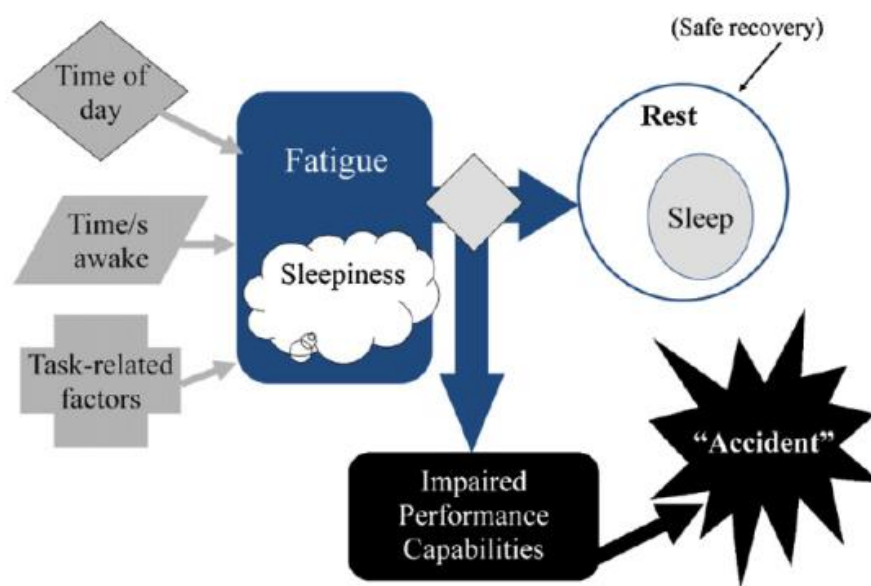

Figure 8.2   Relationship between fatigue and safety (Source Williamson et al 2011)

Insomnia was also found to be more problematic for those working rotating shift schedules which included night shifts (Flo et al 2013). It was found fatigue could be further exacerbated if the job offered low stimulus (Williamson et al 2011). Mikko et al (2006) reported that a rapidly forward rotating shift system (a consecutive morning, evening and night shift followed by two free days) could help older workers by increasing alertness, improving their ability to sleep and well-being. It has also been noted that obesity may be more prevalent in shift workers and risks of longer term health disorders

have also been identified e.g. gastro-intestinal problems, diabetes, cardiovascular disorders and cancer (Zimberg et al 2012, EU-OSHA 2016a).

Redeployment options were also discussed. However, while organisations would have utilised this option in the past, there are now fewer opportunities. Lack of vacancies, lack of relevant skills and financial constraints were stated as possible barriers.

8.2.5 Health promotion

There was agreement amongst older workers that various health promotion activities would be useful, ranging from leaflets, nutrition, exercise to flu jabs. Research elsewhere has shown that lifestyle, exercise and nutrition can influence and help minimise age related risks (Benjamin and Wilson 2005, Walker 2014, Pitt-Catsouphes et al 2015). However, forethought should be given to promotion of these initiatives to avoid older workers feeling 'patronised' and then disinclined to engage with the initiatives. While workplace health and wellness programmes may offer health-related benefits, they may also be under-utilised (Pitt-Catsouphes 2015).

The older workers participating in the individual interviews (study 3, chapter 6) were all in roles requiring physical work. Boyce (2008) noted that employees performing low weight, repetitive tasks using their arms, have significantly higher blood pressure, therefore this work could put older workers at higher risk, especially those with cardiovascular disease or those not participating in exercise. There might be benefit, therefore, for employing organisations to provide readily accessible blood pressure monitoring equipment, so that older workers could regularly check their blood pressure. In study three, older workers agreed that self-check equipment e.g. blood pressure monitors, would be useful if they could access it discretely. However there were mixed responses from the employer representatives as to how achievable and useful these options would be.

This research identified that organisations relied heavily on occupational health surveillance to identify issues and detect capability changes among older workers. Whilst there is little doubt of the importance of the

occupational health function, comments were predominantly focused on reactive occupational health (return to work) and periodic health surveillance to meet legislative requirements. Early diagnosis of issues would be valuable, however, it was clear not all workers received health checks. Employer representatives indicated that a factor in this was concerns about the additional resources (time/money) required if the option of extra health checks was pursued. This is consistent with work by Gyi et al (1998) who found that due to the difficulty of cost-benefit analysis of health management, convincing top management can be difficult.

8.2.6 Reporting culture

Concerns over older workers not reporting problems to their employers featured throughout this research. During the interviews with older workers, it was identified that many were working with capability changes that were impacting on their ability to perform their job or they believed their work could become more challenging in the future. Only capability changes or issues that had resulted in absence tended to be reported. If managers are not aware of problems, they will be unable to identify specific risk factors and risk groups and so will be unable to implement necessary interventions (Popkin et al 2008, Hoonakker and van Duivenbooden 2010).

Some of the comments as to why workers were unwilling to declare changing capabilities were related to lack of trust in management and concerns over breaches in confidentiality. During interviews with older workers they suggested one reason for reluctance to report issues was it could result in them being dismissed or facing redundancy threats. Other researchers have suggested that discriminatory practices may be used by employers who use redundancy, either voluntary or involuntary, as a way of encouraging older workers to retire early (Loretto and White 2006, Billett et al 2011b). Vickerstaff et al (2003) suggested that early retirement appears to be 'demand-led', with organisations using ill-health or redundancy as a flexible way of restructuring or downsizing.

Many older workers believed they would rather retire than report their

capability changes (healthy worker effect), consistent with Kenny et al (2008). Older workers believed exit interviews before retirement, may highlight previously undisclosed issues that could enhance employer knowledge. However, while employer representatives believed retirement exit interviews would be beneficial, problems surrounding personnel involved in the interviews and data analysis were highlighted. These findings are in line with research conducted by Carvin (2011), which reported that honesty is correlated to the exit interviewing method. Carvin (2011) suggested that online exit interviews may increase honesty of responses (Carvin 2011).

8.2.7 Workplace assessments and controls

Workers in the focus groups commented that it was appropriate for adjustments to be made for older workers and ideally implemented proactively to benefit all workers. However, it appears that workplace assessments are aimed at younger colleagues and are not reviewed effectively. While there was acknowledgment of the importance of workplace assessments, employer representatives discussed various challenges catering for differing capabilities. These comments align with the findings of Streb et al (2008), who argued that employers may face additional cost burdens, if increasing numbers of older workers need adjustments or have constraints placed on their performance.

Employers discussed systems in place for checking and maintaining the work environment and provided examples of improvements e.g. lighting. While these improvements benefitted older workers, they appeared to be the consequence of financial drives for productivity or energy efficiency. Job demands, work environments and capability requirements need assessing, so that employers have an understanding of the tasks that have no age issues and those that could be a problem (Ziekemeyer 2005). McDermott et al (2010) suggest a 'life course approach' whereby identification of risk factors and implementations begin early to enable healthy ageing. The importance of this is also emphasised as part of the 'life course perspective' by Walker (2014), recognising that loss of function in later life may be the

result of earlier life experiences.

8.2.8 Support, participation and engagement

Older workers participating in these studies offered a range of suggestions that could help their age group remain in the workforce. During interviews, a theme that was frequently mentioned was inconsistent support provided for older workers and a lack of engagement. It was clear employers were not canvassing their views either during their working life, or during retirement exit interviews. Suggestions offered by focus group participants to help older workers remain in the workplace in a healthy and safe manner placed fair and consistent treatment at the top of their list.

Effective leadership behaviours have been shown to be particularly beneficial in retaining older workers, as feeling engaged is a leading indicator of intention to stay within an organisation (Vincent-Hoper et al 2012). Walker (2014) also stated there is a clear relationship between engagement and wellbeing (Figure 8.3). Research has identified that supervisory support has an immediate effect on work ability of older workers (Ilmarinen et al 2005, Knauth et al 2005).
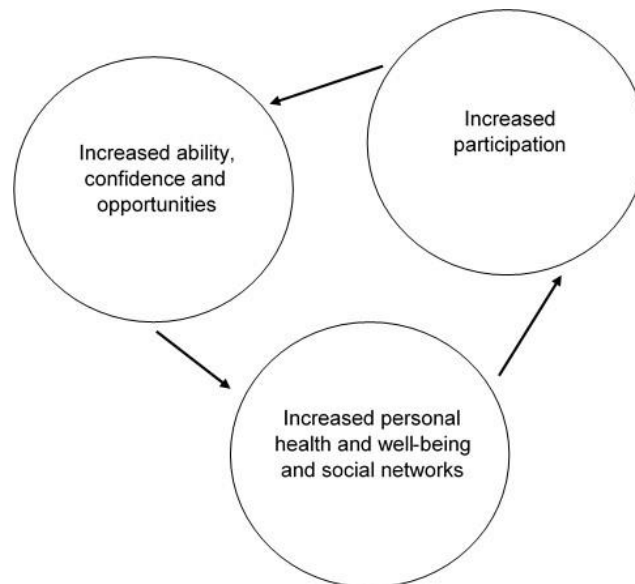

Figure 8.3 Cycle of participation and wellbeing (Source Walker 2014)

8.3   Review and critique of the research

The research presented in this thesis has addressed a gap in the literature by undertaking a combination of interviews and focus groups, to understand the opportunities and challenges encountered by employers seeking to protect and promote the health and safety of older workers. A strength of this research is that the issue has been approached from the direction of multiple stakeholders, both employers and older workers. Triangulation was used, collecting data over different time periods from different sources, to help balance out weaknesses in each data collection (Gray 2011). While quantitative approaches are useful, this research used qualitative methods, enabling flexibility to discuss responses and to provide 'rich', 'full' and 'real' information, "through the eyes of people" (Robson 2004, Bryman 2012). The author of this thesis is an older worker, with years of experience and knowledge working in industry. This enabled empathy and a good rapport with participants, who all appeared to be engaged, enabling discussion around personal issues and the expression of forthright views. However, as discussed in chapter 3, one of the issues of conducting qualitative research is that the researcher may bias the views of the interviewees. While measures were adopted to reduce this, some influence may still remain. The conclusions drawn from the four studies used thematic analysis, which could be influenced by the researcher. However, the findings were supportive and consistent with the literature, which provides confidence in the conclusions.

The participants in the studies had a large geographical spread to capture regional differences and comments were gathered from both large and medium size organisations. The first cross-sector study involving employers resulted in a range of views, however, many of the key points were in agreement, regardless of sector and size of organisation. The focus groups and interviews with older workers, were all conducted within the manufacturing sector, but the range of organisations covered a variety of activities e.g. mining, quarrying, foundries, products for construction, specialist products for industry, logistics (warehousing and haulage). Most of the responses were in agreement irrespective of type of manufacturing

undertaken. Due to the male-dominated labour force within the manufacturing organisations that participated in this research, this resulted in females being under-represented. The organisations willing to participate in these studies had already recognised their worker population was ageing. Again this may reduce the generalizability of findings, as these organisations were already aware that older workers may require additional health and safety measures.

A key output of this research was a selection of good practice health and safety measures that employers could implement to help workers (Appendix F). Chapter 7 discussed the final study which aimed to understand if the good practice measures would be beneficial and achievable to employers. The final study identified that employer representatives believed the set of good practice measures were useful. However, the generalisability of the findings of the study in chapter 7 is limited, due to the low number of organisations who participated in the final study. Employer representatives' reactions to the proposed measures, while of value, should be treated with caution. Their reactions may have been influenced by other factors e.g. they may not have the expertise to offer an opinion on the value of the suggested measures; they may be reluctant to express support for measures that run counter to current senior management philosophy. To take account of this potential bias, participants representing different departments within each organisation were interviewed.

This thesis has described the changing nature of work, employment and the growing population of older workers in the workforce. While the literature indicates how people may change with age and how health and safety initiatives can reduce risk to older workers, helping them remain productive in the workplace for longer, little previous research has examined the health and safety age management strategies that employers may be implementing in practice. This thesis addresses this gap. Within organisations there is confusion about age management for older workers and poor understanding of the diverse needs as capabilities change. Conflict in views and practices

between different functions within organisations was also highlighted. Due to the diversity of age related capability changes and/or health issues experienced by older workers, this makes it convenient for employers to target policy and management for 'typical workers'. However many of the best practice measures discussed in this research would cost relatively little to implement, but would benefit the whole workforce.

In summary this research has:

- Explored what age management practices organisations are using and the concerns they have about accommodating their older workers

- Considered the practicalities of interventions, exploring the benefits and challenges of implementing health and safety measures for older workers

- Developed a set of good practice health and safety measures employers can use as a guide

8.4   Recommendations for further research

Based on the work presented in this thesis, the following avenues for future research are proposed:

- This research focused on the manufacturing sector. Further research with similar aims should be conducted in other sectors to determine the extent to which the barriers and challenges identified are sector specific or the findings are more generalizable

- Employers acknowledged the benefits of supporting and engaging with older workers and agreed that many of the suggested measures discussed would be useful. It was clear that different functions within an organisation did not necessarily have a coordinated approach to managing older workers, which in some instances caused conflict. Longitudinal studies would be beneficial to understand the benefits and complexities of challenges implementing initiatives

- This research highlighted that while academic study has access to a wealth of literature, it is not always accessible to the employer. This often leads to practice ignoring research evidence. Further research seeking to understand the translation of academic knowledge to protecting the health and safety of older workers to employers would be beneficial

- A prerequisite for evaluation and intervention is having knowledge of the patterns and nature of injuries and ill health amongst older workers. Although agencies gather injury and ill health data, this is not broken down fully by age. In order to design interventions and understand their impact, the collection of age profile health and safety data would be a beneficial addition to knowledge

8.5   Concluding remarks

It is in everyone's interest that we support as diverse a workforce as possible. Given the changing demographics and importance of older workers in the workforce over the next few years, it is critical that employers understand how to shape work environments to take advantage of this experienced group of employees, whilst protecting their health and safety. Employers need to engage with older workers as they are the experts at doing their job. This thesis has shown an absence of action among employers, with a tendency towards complacency. Inaccurate stereotyping of older workers persists, with some workplaces applying inappropriate discrimination using the age 'depreciation model'.

This research argues for an integrated age management strategy, focusing on proactive prevention aimed at the protection and promotion of health and safety of older workers. Although this research has focused on older workers (50+), the majority of the suggested measures would require little resource, but would help 'healthy ageing' across the entire workforce, making good business sense.

"Aging is not lost youth but a new stage of opportunity and strength."

Betty Friedan (2017)

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Appendix A

Informed consent form (used for all four studies)

Health and Safety of Older Workers

INFORMED CONSENT FORM

The purpose and details of this study have been explained to me. I understand that this study is designed to further knowledge and that all procedures have been approved by the Loughborough University Ethical Approvals (Human Participants) Sub-Committee.

I have read and understood the information sheet and this consent form.

I have had an opportunity to ask questions about my participation.

I understand that I am under no obligation to take part in the study.

I understand that I have the right to withdraw from this study at any stage for any reason, and that I will not be required to explain my reasons for withdrawing.

I understand that all the information I provide will be treated in strict confidence and will be kept anonymous and confidential to the researchers unless (under the statutory obligations of the agencies which the researchers are working with), it is judged that confidentiality will have to be breached for the safety of the participant or others.

I agree to participate in this study.

Your name

…………………………………………………………………………………………

Your signature

…………………………………………………………………………………………

Signature of investigator

…………………………………………………………………………………………

Date

…………………………………………………………………………………………..

For further information about the study contact:
Carolyn Drake, Loughborough University
Email: c.m.drake@lboro.ac.uk

Appendix B

a) Information sheet sent to employers for study one
b) Interview schedule for study one – interviews with employers

Health and Safety Management of Older Workers

INFORMATION SHEET

This study is part of a research project being undertaken by Loughborough University examining how employers are addressing health and safety and an age diverse workforce. If you have any questions regarding this study please contact me. Your participation is entirely voluntary and if at any point you wish to withdraw you are entirely free to do so and any information you provided will be destroyed.

The term "older worker" used in this study refers to an employee over 50 years of age.

All information is strictly confidential and will only be used for research purposes

Neither you nor your organisation will be identifiable in any reporting of the results

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THANK YOU

For further information about the study contact:
Carolyn Drake, Loughborough University
Email: c.m.drake@lboro.ac.uk

Health and Safety of Older Workers

(Interview Schedule - Study 1)

Part 1 – General company information

1.1 What sector does your organisation operate within? *Please only tick one that is the most relevant*	
Agriculture, Forestry, Fishing	
Mining & Quarrying	
Manufacturing	
Electricity, Gas, Steam & Air Conditioning	
Water, Sewerage & Waste Management	
Construction	
Wholesale & Retail Trade *(inc motor trade)*	
Transport & Storage *(inc rail, air, water, postal & courier)*	
Accommodation & Food Services	
Information & Communications *(inc TV, music, radio, telephone, publishing, IT)*	
Financial & Insurance	
Real Estate	
Professional, Scientific & Technical *(inc vets, accounting, engineering services, advertising, PR & legal)*	
Administration & Support Services *(inc rental services, travel agency, employment services, security, cleaning, landscaping, call centres)*	

Public Administration & Defence *(state services for the community inc councils, fire services, judicial)*	
Education	
Human Health & Social Work *(inc hospitals, doctors, dentists, residential & day care)*	
Arts, Entertainment & Recreation	

1.2 Total number of employees who are <u>UK</u> based within your organisation			
Less than 10	10 to 49	50 to 249	250 +

1.3 Do you know if there are any UK employees in your organisation who are over 65 years of age?			
No		Yes	
		How many?	

1.4 Are you anticipating a higher proportion of older workers (50+ years) in the next 5 to 10 years in your organisation?	
Yes	No

1.5 We know the workforce is ageing – do you think this will have any implications for an employer and/or employee?			
No		Yes	
		What?	

1.6 With regards to older workers (50+ years) do you have any health and safety concerns?			
No		Yes	
		What?	

1.7 Do you see any gender differences in the health and safety issues of employees 50+ years old?			
No		Yes	
		Please provide example(s)	

1.8 Do you think older workers (50+ years) bring any <u>health and safety</u> benefits to the workplace?			
No		Yes	
		What?	

Part 2 – Strategies in place

2.1 Has your company taken any action and/or begun to take measures that respond to an ageing workforce? *(tick all those that apply)*	
Within the past 12 months	
One to five years ago	
No plans *(proceed to question 2.3)*	
Has plans to implement within the next 12 months	
Has implemented actions, now monitoring and improving on them	

2.2 What form do these measures take *e.g. changes to health and safety management/policy, changes to the workplace, changes to work organisation etc. Please provide information under the most relevant heading below.*
Measures that are Planned or Implementation is in Progress
Completed Measures

2.3 Does your company provide any training about possible age related changes, what to look for, how to address these?			
No		Yes	
		Who receives training?	

2.4 Within the last two years has any employee over 50 years old taken early retirement, or left your company, due to their inability to carry on with their job role?			
No		Yes	
		What was the reason?	

2.5 Does your organisation have any way to capture and transfer knowledge from experienced employees?			
No		Yes	
		What?	

2.6 Is there any other comment you would like to make about health and safety and an older age diverse workforce?

2.7 Your job title	

Thank you for completing this questionnaire

Would you and/or your company be willing to participate in further research regarding an age diverse workforce? If yes, could you please provide contact details.

All information is strictly confidential and will only be used for research purposes. Neither you nor your organisation will be identifiable in any reporting of the results

Name

Email address

Telephone number

Appendix C

a) Recruitment material for study two
b) Moderator's guide for study two - focus group discussions
c) Prompt cards

Health and Safety for an Ageing Workforce

Your opinions are important - can you help ?

This study is part of a research project being undertaken by Loughborough University. For the purposes of this research an older worker is classified as being over 50 years of age.

The Government announced increases in the state pension age and removal of the mandatory retirement age. Employers will face both health and safety opportunities as well as challenges.

A previous study explored the employers' perception of an ageing workforce and found both benefits of employing older workers, but also barriers to implementing health and safety age management strategies.

Further investigation will now be undertaken to understand the employee's experiences and opinions of health and safety age management.

Your opinions are important - can you help ?

I am seeking employees (aged over 50 years) to participate in a discussion group (maximum of 8 participants) which is expected to take circa 1 ½ hrs

All information you provide is strictly confidential and will only be used for research purposes. Neither you nor your organisation will be identifiable in any reporting of results.

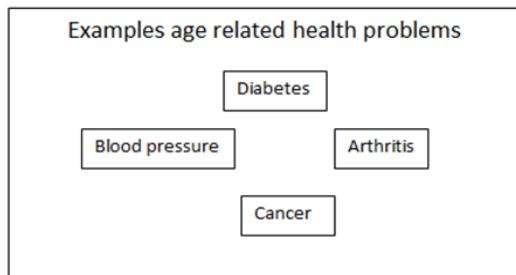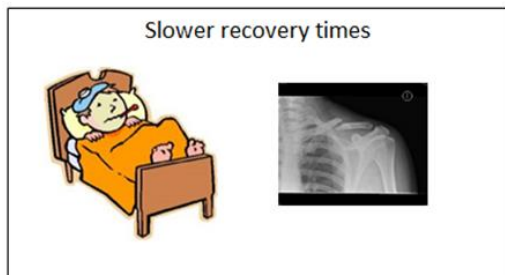If you have any questions regarding this study please contact me.
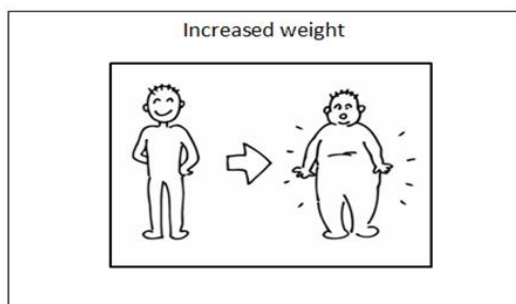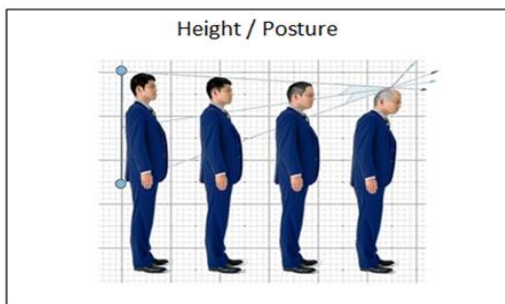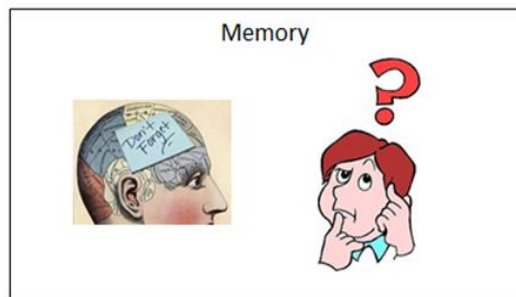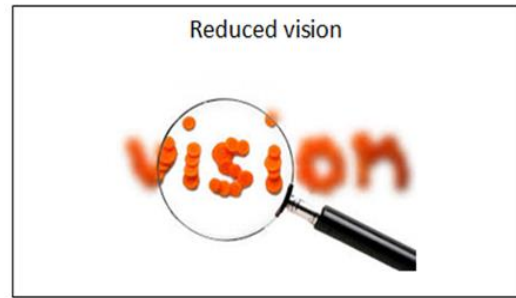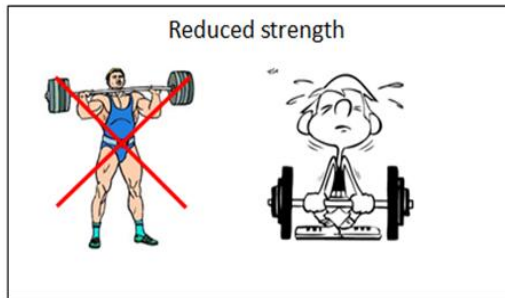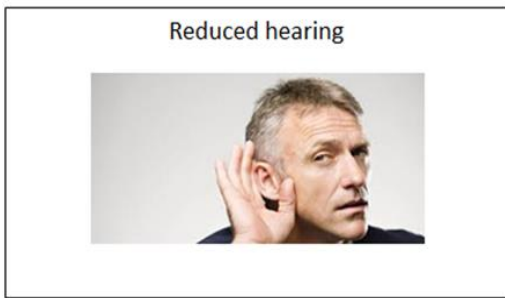
Thank you

Carolyn Drake, Loughborough University
C.M.Drake@lboro.ac.uk

Health and Safety of Older Workers

(Moderators guide for focus group - Study 2)

Topic	Description	Aids	Duration
Introduction	- Objectives of project - Aims for this session - Practical issues: recording/ confidentiality/sign consent form /etiquette (only one speak at a time etc) - Introductions (name, role, age?)	Recording equipment Forms	15
Warm up	My changes		5
Visual references of ageing changes	Visual examples of changes that happen – we can adapt/use personal coping mechanisms for some, but some work demands may exceed changing capability and we cannot implement things ourselves	Pictures/Text	5
Discussion 1	- If you see your employer implementing adjustments for older workers, would you see this as being unfair to you and your age group? - When should the measures be implemented? a) when a person has problems b) implemented for all over 50 years of age whether they have problems for not?		20

Appendix C-3

Discussion 2	If a worker's capabilities change and adjustments are not possible, or not enough, what do you think your employer would do?		10
Discussion 3	Many employers believe their reporting culture is poor in relation to employees reporting changes in capability: • Some thought fear of consequences may stop workers reporting changes, what do you think? • Are you encouraged to report any possible changes that may affect your work?		10
Discussion 4	Hardly any organisations provided any age awareness training. Do you think this would be a good idea?		10
Discussion 5	Older workers have a wealth of health and safety knowledge and experience. How is your knowledge captured/shared?		10
Ending session	Do you have any suggestions of how your employer could help older workers?		5
			90 mins

The following were used as prompt cards during the focus group discussions

Reduced hearing

Reduced flexibility, balance and mobility

Reduced strength

Reduced vision

Reduced reaction time

Memory

Height / Posture

Increased weight

Slower recovery times

Examples age related health problems

Diabetes

Blood pressure

Arthritis

Cancer

Appendix D

a) Recruitment material for study three
b) Interview schedule for study three – interviews with older workers
c) Suggestions

Health and Safety for an Ageing Workforce

Your opinions are important - can you help ?

This study is part of a research project being undertaken by Loughborough University. For the purposes of this research an older worker is classified as being over 50 years of age.

Previous Studies

As part of a wider programme of research two qualitative studies have been conducted comprising of interviewing senior personnel about health and safety and their opinions on an ageing workforce with the key findings from this study taken through to employee focus groups within manufacturing. The first study explored the employers' perception of an ageing workforce and found both benefits of employing older workers, but also barriers to implementing health and safety age management strategies. The second study explored employees perceptions about changing capabilities, the reporting culture and health and safety adjustments. The focus groups were also asked for their suggestions for health and safety initiatives that employers could implement to help older workers remain in the workplace longer and stay healthy and safe.

Next phase of research

Further investigation will now be undertaken to understand the employee's personal experiences and opinions of the health and safety age management barriers identified by employers and the employee focus groups and to ascertain what actions they would prefer their employers to implement.

Employees (aged over 50 years) are sought to participate in individual interviews which are expected to last for a maximum of 30 minutes.

All information you provide is strictly confidential and will only be used for research purposes. Neither you nor your organisation will be identifiable in any reporting of results.

If you have any questions regarding this study please contact me.

Carolyn Drake, Loughborough University

C.M.Drake@lboro.ac.uk

Health and Safety of Older Workers

(Interview Schedule - Study 3)

Part 1 – General information

1.1 Age grouping			
50 – 54 years	55 to 59 years	60 to 64 years	65 years and over

1.2 What best describes your job *(majority of time)*			
Sedentary		Active	
Full-time *(30+hrs wk)*		Part-time	
Manager	Supervisor		Operative/Skilled

1.3 Total number of employees who are <u>UK</u> based within your organisation			
Less than 10	10 to 49	50 to 249	250 +

Part 2 – Specific questions

2.1 Have you seen a policy on age diversity, or any other information specifically related to older workers?

2.2 Do you think you have any age related conditions that may affect your work?

- *If Yes* - What?

- Have you reported it?   *If not why not?*

- What help was given?

As you age do you think there may be aspects of your job that could become more challenging?

- *If Yes* - What?

- Would you report these changes/personal challenges?

- Who would you report changes / challenges too?

2.3 How long do you think you may remain in the workforce?

What is your motivation behind your decision?

2.4 Have you seen any examples of health and safety promotions/measures that could be particularly helpful for older workers?

- *If yes* - What?

2.5 How would you rate your employers' understanding of any potential changes/challenges that may impact on an older worker as their capabilities may change?

1 Very poor	2 Poor	3 Neutral	4 Good	5 Very good
Can you expand on your response?				

2.6 How fair and helpful do you think your employer would be if you experienced capability changes that may impact on your ability to do your job/or certain tasks?

1 Very unhelpful / unfair	2 Unhelpful / unfair	3 Neutral	4 Helpful / Fair	5 Very helpful / fair
Can you expand on your response?				

2.7 Please look at Suggestions – which *five* would be most beneficial to you? *(Put in order with 1 being your most favourite)*

Suggestions

	Choose top 5 most beneficial to you - *(order them with 1 being your favourite)*	
1	Need clear company policies on age diversity and they need communicating	
2	Recruit early before people retire	
3	Risk/task assessments - matching the task requirements with a person's capabilities, rather than a standard risk assessment based on an average worker's capabilities.	
4	Age balanced workforce	
5	Better flooring	
6	Better lighting	
7	Install a lift	
8	Gym facilities	
9	Better rest facilities with comfortable seating and a quiet area	
10	Equipment - person - fit: ergonomics assessments to make sure as capabilities/physique change that person is still comfortable	
11	Reducing weights of some items	
12	Option to reduce working hours (flexible working or job share)	
13	Enhance questions about capability on reviews (PDR)	
14	Increase the frequency of health checks	
15	Change shift times/patterns / option to come off shifts	
16	Be able to access occupational health discretely or be able to access advice from an independent person	
17	Job rotation	
18	More frequent breaks	
19	Remove time pressures to avoid work overload	
20	Invited to training courses	

Appendix E

a) Recruitment material for study four
b) Interview schedule for study four – interviews with employers and
   worker representatives

The health and safety of older workers: Information Sheet

This study is part of a research project being undertaken by Loughborough University examining how employers are addressing the health and safety of older workers. Over the last two years I have been researching the age management strategies that UK employers are using to protect the health and safety of older workers in the workplace. During this research a number of barriers and facilitators were highlighted. Using my research findings and a literature review I have compiled a list of health and safety good practice measures that could help employers engage with and protect their older workers.

I would like to interview some key stakeholders within organisations to discuss these good practice health and safety examples. I would like to interview a key senior personnel from each of the following functions: operations, human resources, health and safety. I would also like to interview a key employee representative.

I anticipate discussions will be between 1 and 1.5 hours. Due to the multi-disciplinary nature of some of the measures different stakeholders will have varying degrees of input.

The term "older worker" used in this study refers to an employee over 50 years of age.

All information is strictly confidential and will only be used for research purposes

Neither you nor your organisation will be identifiable in any reporting of the results

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If you have any questions regarding this study please contact me. Your participation is entirely voluntary and if at any point you wish to withdraw you are entirely free to do so and any information you provided will be destroyed.

THANK YOU

For further information about the study contact:
Carolyn Drake, Loughborough University
Email: c.m.drake@lboro.ac.uk

Loughborough University

Health and Safety of Older Workers

(Interview Schedule - Study 4)

Operational	
Human Resources	
Health & Safety	
Union/Employee Representative	

Part 1 – General information

1.1 Description of your organisation's activities	
Are your activities conducted over multiple sites? How many? Geographical location(s)?	
Is there a range of activities conducted? Please describe	

1.2 Total number of employees who are <u>UK</u> based within your organisation	
50 to 249	250 +

Part 2 – Specific questions

2.1 What would prompt your organisation to implement additional approaches/measures to help protect and promote the health and safety of older workers?

2.2 This discussion will explore a range of measures that may be of value to help protect and promote the health and safety of older workers. With regards to the following :

- Do you think they could be helpful within your organisation?

- Do you think they are achievable?

- Are there any challenges to implementation?

Measure for Discussion	Sub-category prompts
Policy	To include Age Diversity
	Other relevant information, guidance
Work environment	Lighting
	Flooring
	Rest facilities
Work scheduling	Flexible working, reduce hours, job share options
	Redeployment options
	Option to stop shift working
Recruitment process/ succession planning	Start early to alleviate stress on those leaving and those left to train up successor (helps capture knowledge)
	Exit interviews (to help understanding of any job difficulties – ongoing knowledge)

Training/Workshops	Managers/Supervisors (age awareness to include capability changes, support available, adjustments, Dementia & Alzheimers, policy and legislation)
	All (age awareness but possibly more basic than for managers/supervisors)
	Pension workshops
	Personal Development (what next, self-analysis of current role)
Reporting (capability changes)	Control in the system to ensure confidentiality
	Control in the system to ensure any advice/adjustments are always fair & helpful
Proactive approach to participation and engagement	Communications disseminated relevant to older worker/ role (various channels used)
	Involvement of older workers to capture their views (e.g. meetings, policy, workplace assessments)
Health promotion	More frequent checks as worker ages
	Basic checks for all older workers
	Access to BMI, blood pressure, weight machine
	Leaflets (e.g. bowel cancer, testicular cancer)
	Healthy eating information
	Importance of exercise as age
	Flu jabs
	Fatigue management
	Gym facilities

Assessments and control measures (adjustments):	Tasks risk assessed (diversity sensitive) and job profiled for older workers
Workplace	
Work equipment	
Tasks	
Observations	

Examples of adjustments

Higher financial implication examples:

1. *Additional lighting*

2. *Cleaning duties a) instead of carrying vacuum cleaner between floors etc suction pipes provided on each floor to plug into to; b) additional staff employed to work on one floor level only*

Low cost examples:

1. *Older workers required to walk and stand on concrete flooring for considerable part of the day, with many experiencing knee problems. Gel pads for shoes provided.*

2. *Older workers required to kneel were provided with knee pads.*

3. *Both office and workshop – consideration given to height of stored items (nothing close to the floor)*

4. *Older workers can feel the cold more (outside) – additional warm clothing supplied*

5. *Working in hot environment can cause fatigue – allow additional recovery time*

Appendix F

A selection of good practice health and safety measures employers could implement to help older workers

Good practice list of health and safety measures employers could implement to help older workers

Good practice measures	
Policy and guidance	• Policies to include age diversity. • Guidance and other relevant information, detailing support and examples of options available for older workers. Accessible by managers and workers.
Work environment	• Lighting – vision changes with age (e.g. reduction in peripheral vision, reduced colour and depth perception, susceptible to glare etc) additional consideration is needed in areas where older workers visit/work. There may be a requirement for increased Lux – e.g. consider if lighting is sufficient to enable detailed work, reading, seeing signage, changes in floor levels etc. Additional consideration for driving and night-time working. • Flooring – as people age they may experience a reduction in flexibility, mobility and balance, resulting in increased incidence of slips, trips and falls. Consider suitability of flooring etc and maintain existing flooring taking into consideration where older workers walk, stand and drive. Assess their requirements e.g. footwear, anti-fatigue matting, suspension on vehicles. • Rest facilities – for various reasons older workers may feel more fatigued. Consider 'quiet' rest areas.
Work scheduling	• Flexible working practices have been proven to benefit older workers e.g. flexible working, reduced hours, job share. Consider offering one/all of these options. • Redeployment – performance can decline with age – if capabilities decline to the extent that they impact on ability to perform job role, are there opportunities for redeployment? • Shift working – there is an increasing intolerance to night shifts as people age – are there opportunities to change shift patterns that have less impact on circadian systems; or opportunities to stop working shifts.

Recruitment process and succession planning	• Are succession plans in place to gauge when older workers may retire? Does the recruitment process start early, so that the successor is in place before older worker retires? This has many benefits e.g. increases knowledge transfer; mitigates performance declines in older workers last few months. • Exit interviews – conduct exit interviews when older workers retire. An ideal opportunity to understand any job difficulties and worker may be more open to share their views. Consider who will conduct the interviews e.g. someone known to the worker. If they feel uneasy about a face to face interview, consider having an online option.
Training/workshops	• Age awareness training for managers to include capability changes, support available, legislation etc. Awareness should help improve empathy, task allocation, support and general trust in management. • Age awareness training for all employees – possibly shorter duration than for managers. This will provide many benefits e.g. help older workers manage their minor capabilities better, improve reporting of issues, help them assess future suitability of their current role etc. • Personal development workshops – as point above, enables older workers to reflect/self-analyse their remaining time in work and think about any necessary changes to enable longer working life. • Pension workshops – provide information about pensions and retirement choices.
Reporting (capability changes)	• There needs to be a reporting system that provides different routes older workers can use to report capability change issues that may affect their work e.g. some may be comfortable with reporting to their own manager, others may prefer to discuss issues discretely with someone outside of their immediate department e.g. occupational health. • There needs to be control in the system to ensure confidentiality. If it is beneficial for others to know about the older worker's condition, permission must be sought from the older worker that their data can be passed. • There should be consistency in advice and adjustments offered for the same issue.

Proactive approach to participation and engagement	• Disseminate communications relevant to older workers' roles. It may be necessary to use various channels e.g. electronic forms, hard copy, noticeboards, meetings etc. • Are older workers' voices heard e.g. represented on committees, at meetings, participate in discussion groups etc. • Are older workers' views captured, are they involved in developing workplace systems e.g. writing safe systems of work, workplace assessments etc.
Health promotion	• Health checks – increase frequency as workers age. Provide basic checks for all older workers. • Provide basic equipment for workers to perform simple health checks discretely e.g. blood pressure, weight. • Circulate leaflets on various health aspects e.g. healthy eating, importance of exercise. Circulate information on other relevant health issues e.g. bowel cancer etc. • Consider offering flu jabs • Consider gym facilities or memberships • Fatigue management (this is beyond a state of sleepiness) e.g.it could involve additional working hours to cover absenteeism or increased production deadlines, long travel times additional to working hours, shift workers having to work additional hours to attend meetings or cover following shifts etc. Fatigue proofing initiatives should be included on workplace assessments
Workplace assessments and controls	• Assessors require training and knowledge about changing capabilities and relevant adjustments • Involve relevant people in conducting assessments • Include differing capabilities • Assessments should include person, work environment, tasks • Consider workplace observations and discussions